

08/06/2010

Kit Components

Product code	Description
XINF-KIT-19	CUSTOM ORGANIC STANDARD
Components:	
BTEX-2-1H	BTEX STD
CLPV-AH	VO IND. BLENDS MIX A
CLPV-A	VO IND. BLENDS MIX A
GRO-1000	GASOLINE RANGE ORGANICS
NEAT-2458	Custom Organic
NEAT-3505	Custom Organic
NEAT-3873	Custom Organic Standard-Unleaded Gasoline
P-GAS	PURGEABLE AROMATICS FOR GASOLI
TCLP-V	TCLP VOLATILES SPIKE B (NO VIN
THM-X-400	TRIHALOMETHANES
XINF-IS-4	CUSTOM INT STD
XQ-1314	Custom 5 compound organic standard
XQ-3603	Custom
XS-2380-30ML	METHANOL

Material Safety Data Sheet
acc. to ISO/DIS 11014

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Printing date 08/06/2010

Reviewed on 07/12/2010

1 Identification of substance

- **Product details**
- **Trade name:** VO IND. BLENDS MIX A
- **Article number:** CLPV-AH
- **Application of the substance / the preparation**
- **Manufacturer/Supplier:**
SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840
- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:		
67-56-1	methanol	Danger: ⚠ 2.6/2; ⚠ 3.1.O/3, 3.1.D/3, 3.1.I/3; ⚠ 3.8/1 97.0%
79-34-5	1,1,2,2-tetrachloroethane	Danger: ⚠ 3.1.D/1, 3.1.I/2 ⚠ 4.1.C/2 0.2%
107-06-2	1,2-dichloroethane	Danger: ⚠ 2.6/2; ⚠ 3.6/1B Warning: ⚠ 3.1.O/4, 3.2/2, 3.3/2A, 3.8/3 0.2%
75-25-2	bromoform	Danger: ⚠ 3.1.I/3, 3.2/2, 3.3/2A ⚠ 4.1.C/2 0.2%
56-23-5	carbon tetrachloride	Danger: ⚠ 3.1.O/3, 3.1.D/3, 3.1.I/3; ⚠ 3.9/1, 3.6/2 4.1.C/3 0.2%
108-90-7	chlorobenzene	Warning: ⚠ 2.6/3; ⚠ 3.1.I/4 ⚠ 4.1.C/2 0.2%
127-18-4	tetrachloroethylene	Warning: ⚠ 3.6/2 ⚠ 4.1.C/2 0.2%
79-01-6	trichloroethylene	Danger: ⚠ 3.6/1B, 3.5/2 Warning: ⚠ 3.2/2, 3.3/2A, 3.8/3 4.1.C/3 0.2%

Chemical identification of the substance/preparation

75-09-2	dichloromethane	Warning: ⚠ 3.6/2 0.2%
75-34-3	1,1-dichloroethane	Danger: ⚠ 2.6/2 Warning: ⚠ 3.1.O/4, 3.3/2A, 3.8/3 4.1.C/3 0.2%
75-35-4	1,1-dichloroethylene	Danger: ⚠ 2.6/1 Warning: ⚠ 3.6/2; ⚠ 3.1.I/4 0.2%
79-00-5	1,1,2-trichloroethane	Warning: ⚠ 3.6/2; ⚠ 3.1.O/4, 3.1.D/4, 3.1.I/4 0.2%
78-87-5	1,2-dichloropropane	Danger: ⚠ 2.6/2 Warning: ⚠ 3.1.O/4, 3.1.I/4 0.2%
67-66-3	trichloromethane	Warning: ⚠ 3.6/2, 3.9/2; ⚠ 3.1.O/4, 3.2/2 0.2%
124-48-1	dibromochloromethane	Warning: ⚠ 3.1.O/4 0.2%
156-60-5	trans-dichloroethylene	Danger: ⚠ 2.6/2 Warning: ⚠ 3.1.I/4 4.1.C/3 0.2%

3 Hazards identification**Hazard description:**

Toxic
Highly flammable
Dangerous for the environment

- **Information pertaining to particular dangers for man and environment:**
The product has to be labelled due to the calculation procedure of international guidelines.
May cause cancer.

(Contd. on page 2)

USA

Trade name: VO IND. BLENDS MIX A

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Highly flammable.
Also toxic by inhalation, in contact with skin and if swallowed.
Also toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Also harmful: danger of serious damage to health by prolonged exposure through inhalation.
Dangerous for the ozone layer.

· **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
· **NFPA ratings (scale 0 - 4)**



· **HMS-ratings (scale 0 - 4)**



· **GHS label elements**



2.6/2 - Highly flammable liquid and vapour.



3.1/2 - Fatal if swallowed.
3.1/2 - Fatal if inhaled.



3.6/1B - May cause cancer.
3.8/1 - Causes damage to organs.
3.9/2 - May cause damage to organs through prolonged or repeated exposure.

· **Response:**
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see on this label).

· **Storage:**
Store locked up.
· **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

· **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet

(Contd. on page 3)

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Trade name: VO IND. BLENDS MIX A

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· **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

· **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
· **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

· **Handling:**
· **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Store in a cool location.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.
· **Components with limit values that require monitoring at the workplace:**

67-56-1 methanol	
PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm
	Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm
	Skin; BEI
79-34-5 1,1,2,2-tetrachloroethane	
PEL	35 mg/m ³ , 5 ppm
	Skin
REL	7 mg/m ³ , 1 ppm
	Skin
TLV	6.9 mg/m ³ , 1 ppm
	Skin
107-06-2 1,2-dichloroethane	
PEL	Short-term value: C 100; 200* ppm Long-term value: 50 ppm *5-min peak in any 3 hrs
REL	Short-term value: 8 mg/m ³ , 2 ppm Long-term value: 4 mg/m ³ , 1 ppm
TLV	40 mg/m ³ , 10 ppm

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75-25-2 bromoform

PEL 5 mg/m³, 0.5 ppm
Skin
REL 5 mg/m³, 0.5 ppm
Skin
TLV 5.2 mg/m³, 0.5 ppm

56-23-5 carbon tetrachloride

PEL Short-term value: C 25; 200* ppm
Long-term value: 10 ppm
*5-min peak in any 3 hrs
REL Short-term value: 12.6* mg/m³, 2* ppm
*60-min
TLV Short-term value: 63 mg/m³, 10 ppm
Long-term value: 31 mg/m³, 5 ppm
Skin

79-01-6 trichloroethylene

PEL Short-term value: C 200; 300* ppm
Long-term value: 100 ppm
*5-min peak in any 2 hrs
REL Short-term value: C 2* ppm
Long-term value: 25 ppm
*(60-min as a waste anesthetic gas)
TLV Short-term value: 135 mg/m³, 25 ppm
Long-term value: 54 mg/m³, 10 ppm
(BEI)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form: Fluid
Color: According to product specification
Odor: Characteristic

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· **Change in condition**
Melting point/Melting range: -98°C (-144°F)
Boiling point/Boiling range: 64°C (147°F)

· **Flash point:** 11°C (52°F)

· **Ignition temperature:** 455°C (851°F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

Lower: 5.5 Vol %

Upper: 44 Vol %

· **Vapor pressure at 20°C (68°F):** 128 hPa (96 mm Hg)

· **Density at 20°C (68°F):** 0.79 g/cm³

· **Solubility in / Miscibility with**
Water: Not miscible or difficult to mix.

· **Solvent content:**
Organic solvents: 98.4 %
VOC content: 98.4 %
799.3 g/l / 6.67 lb/gal

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Dangerous reactions:** No dangerous reactions known.

· **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

67-56-1 methanol

Oral LD50 5628 mg/kg (rat)

Dermal LD50 15800 mg/kg (rabbit)

79-34-5 1,1,2,2-tetrachloroethane

Oral LD50 800 mg/kg (rat)

107-06-2 1,2-dichloroethane

Oral LD50 670 mg/kg (rat)

Dermal LD50 2800 mg/kg (rat)

56-23-5 carbon tetrachloride

Oral LD50 2350 mg/kg (rat)

Dermal LD50 5070 mg/kg (rat)

79-01-6 trichloroethylene

Oral LD50 2402 mg/kg (mouse)

Dermal LD50 8450 mg/kg (mouse)

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Carcinogenic.

12 Ecological information

· **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

- **Product:**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **DOT regulations:**



- **Hazard class:** 3
- **Identification number:** UN1992
- **Packing group:** II
- **Proper shipping name (technical name):** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)
- **Label:** 3+6.1

· **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 3 Flammable liquids
- **Danger code (Kemler):** 336
- **UN-Number:** 1992
- **Packing group:** II
- **Label:** 3+6.1
- **Description of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1992
- **Label:** 3+6.1
- **Packing group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UNID Number:** 1992
- **Label:** 3+6.1
- **Packing group:** II
- **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **UN "Model Regulation":** UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

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Trade name: VO IND. BLENDS MIX A

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15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

75-34-3	1,1-dichloroethane
67-66-3	trichloromethane

· **Section 313 (Specific toxic chemical listings):**

67-56-1	methanol
75-09-2	dichloromethane
75-34-3	1,1-dichloroethane
75-35-4	1,1-dichloroethylene
79-00-5	1,1,2-trichloroethane
79-34-5	1,1,2,2-tetrachloroethane
78-87-5	1,2-dichloropropane
107-06-2	1,2-dichloroethane
75-25-2	bromoform
56-23-5	carbon tetrachloride
108-90-7	chlorobenzene
67-66-3	trichloromethane
127-18-4	tetrachloroethylene
79-01-6	trichloroethylene

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

75-09-2	dichloromethane
75-34-3	1,1-dichloroethane
79-00-5	1,1,2-trichloroethane
79-34-5	1,1,2,2-tetrachloroethane
78-87-5	1,2-dichloropropane
107-06-2	1,2-dichloroethane
75-25-2	bromoform
56-23-5	carbon tetrachloride
67-66-3	trichloromethane
127-18-4	tetrachloroethylene
79-01-6	trichloroethylene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

75-09-2	dichloromethane	B2
75-34-3	1,1-dichloroethane	C
75-35-4	1,1-dichloroethylene	S, I
79-00-5	1,1,2-trichloroethane	C
79-34-5	1,1,2,2-tetrachloroethane	C
107-06-2	1,2-dichloroethane	B2
75-25-2	bromoform	B2
56-23-5	carbon tetrachloride	B2
108-90-7	chlorobenzene	D
67-66-3	trichloromethane	NL
124-48-1	dibromochloromethane	C

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- IARC (International Agency for Research on Cancer)	
75-09-2 dichloromethane	2B
75-35-4 1,1-dichloroethylene	3
79-00-5 1,1,2-trichloroethane	3
79-34-5 1,1,2,2-tetrachloroethane	3
78-87-5 1,2-dichloropropane	3
107-06-2 1,2-dichloroethane	2B
75-25-2 bromoform	3
56-23-5 carbon tetrachloride	2B
67-66-3 trichloromethane	2B
124-48-1 dibromochloromethane	3
127-18-4 tetrachloroethylene	2A
79-01-6 trichloroethylene	2A
- NTP (National Toxicology Program)	
75-09-2 dichloromethane	R
107-06-2 1,2-dichloroethane	R
56-23-5 carbon tetrachloride	R
67-66-3 trichloromethane	R
127-18-4 tetrachloroethylene	R
79-01-6 trichloroethylene	R
- TLV (Threshold Limit Value established by ACGIH)	
75-09-2 dichloromethane	A3
75-34-3 1,1-dichloroethane	A4
75-35-4 1,1-dichloroethylene	A4
79-00-5 1,1,2-trichloroethane	A3
79-34-5 1,1,2,2-tetrachloroethane	A3
78-87-5 1,2-dichloropropane	A4
107-06-2 1,2-dichloroethane	A4
75-25-2 bromoform	A3
56-23-5 carbon tetrachloride	A2
108-90-7 chlorobenzene	A3
67-66-3 trichloromethane	A3
127-18-4 tetrachloroethylene	A3
79-01-6 trichloroethylene	A2
- NIOSH-Ca (National Institute for Occupational Safety and Health)	
75-09-2 dichloromethane	
75-35-4 1,1-dichloroethylene	
79-00-5 1,1,2-trichloroethane	
79-34-5 1,1,2,2-tetrachloroethane	
78-87-5 1,2-dichloropropane	
107-06-2 1,2-dichloroethane	
56-23-5 carbon tetrachloride	
67-66-3 trichloromethane	
127-18-4 tetrachloroethylene	
79-01-6 trichloroethylene	
- OSHA-Ca (Occupational Safety & Health Administration)	
75-09-2 dichloromethane	

- Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

- Hazard symbols:



Toxic
Highly flammable
Dangerous for the environment

- Hazard-determining components of labelling:
methanol

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trichloroethylene
carbon tetrachloride
1,2-dichloroethane
- Risk phrases:
May cause cancer.
Highly flammable.
Also toxic by inhalation, in contact with skin and if swallowed.
Also toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Also harmful: danger of serious damage to health by prolonged exposure through inhalation.
Dangerous for the ozone layer.
- Safety phrases:
Avoid exposure - obtain special instructions before use.
Keep locked up and out of the reach of children.
Do not empty into drains.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Refer to manufacturer/supplier for information on recovery/recycling.
In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** product safety department

- **Contact:**

SPEX CertiPrep Inc.

732-549-7144

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMSIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA

1 Identification of substance

- **Product details**
- **Trade name:** VO IND. BLENDS MIX A
- **Article number:** CLPV-A
- **Application of the substance / the preparation**
- **Manufacturer/Supplier:**
SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:			
67-56-1	methanol	Danger: 2.6/2; 3.1.O/3, 3.1.D/3, 3.1.I/3; 3.8/1	99.7%
- Chemical identification of the substance/preparation			
79-34-5	1,1,2,2-tetrachloroethane	Danger: 3.1.D/1, 3.1.I/2 4.1.C/2	0.02%
79-00-5	1,1,2-trichloroethane	Warning: 3.6/2; 3.1.O/4, 3.1.D/4, 3.1.I/4	0.02%
75-34-3	1,1-dichloroethane	Danger: 2.6/2 Warning: 3.1.O/4, 3.3/2A, 3.8/3 4.1.C/3	0.02%
75-35-4	1,1-dichloroethylene	Danger: 2.6/1 Warning: 3.6/2; 3.1.I/4	0.02%
107-06-2	1,2-dichloroethane	Danger: 2.6/2; 3.6/1B Warning: 3.1.O/4, 3.2/2, 3.3/2A, 3.8/3	0.02%
78-87-5	1,2-dichloropropane	Danger: 2.6/2 Warning: 3.1.O/4, 3.1.I/4	0.02%
75-25-2	bromoform	Danger: 3.1.I/3, 3.2/2, 3.3/2A 4.1.C/2	0.02%
56-23-5	carbon tetrachloride	Danger: 3.1.O/3, 3.1.D/3, 3.1.I/3; 3.9/1, 3.6/2 4.1.C/3	0.02%
108-90-7	chlorobenzene	Warning: 2.6/3; 3.1.I/4 4.1.C/2	0.02%
67-66-3	trichloromethane	Warning: 3.6/2, 3.9/2; 3.1.O/4, 3.2/2	0.02%
124-48-1	dibromochloromethane	Warning: 3.1.O/4	0.02%
75-09-2	dichloromethane	Warning: 3.6/2	0.02%
127-18-4	tetrachloroethylene	Warning: 3.6/2 4.1.C/2	0.02%
156-60-5	trans-dichloroethylene	Danger: 2.6/2 Warning: 3.1.I/4 4.1.C/3	0.02%
79-01-6	trichloroethylene	Danger: 3.6/1B, 3.5/2 Warning: 3.2/2, 3.3/2A, 3.8/3 4.1.C/3	0.02%

3 Hazards identification

- **Hazard description:**
- 
- 
- Toxic
Highly flammable

- **Information pertaining to particular dangers for man and environment:**
The product has to be labelled due to the calculation procedure of international guidelines.
Highly flammable.

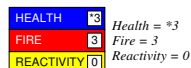
Trade name: VO IND. BLENDS MIX A

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- **Toxic by inhalation, in contact with skin and if swallowed.**
- **Toxic:** danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **GHS label elements**



- 2.6/2 - Highly flammable liquid and vapour.



- 3.1/2 - Fatal if inhaled.



- 3.8/1 - Causes damage to organs.

- **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **Response:**
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see on this label).
- **Storage:**
Store locked up.
- **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

- **General information:**
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

Printing date 08/06/2010

Reviewed on 08/06/2010

Trade name: VO IND. BLENDS MIX A

(Contd. of page 2)

- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

67-56-1 methanol

PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm
	Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm
	Skin; BEI

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)

USA

Printing date 08/06/2010

Reviewed on 08/06/2010

Trade name: VO IND. BLENDS MIX A

(Contd. of page 3)

- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

General Information

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

Change in condition

Melting point/Melting range:	-98°C (-144°F)
Boiling point/Boiling range:	64°C (147°F)

Flash point:

11°C (52°F)

Ignition temperature:

455°C (851°F)

Auto igniting:

Product is not selfigniting.

Danger of explosion:

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:

Lower:	5.5 Vol %
Upper:	44 Vol %

Vapor pressure at 20°C (68°F):

128 hPa (96 mm Hg)

Density at 20°C (68°F):

0.79 g/cm³

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

Solvent content:

Organic solvents:	99.8 %
VOC content:	99.8 %
	791.0 g/l / 6.60 lb/gal

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

67-56-1 methanol

Oral	LD50	3628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

Primary irritant effect:

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic

USA

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Reviewed on 08/06/2010

Trade name: VO IND. BLENDS MIX A

(Contd. of page 4)

12 Ecological information

· **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Product:**
· **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **DOT regulations:**



· **Hazard class:** 3
· **Identification number:** UN1992
· **Packing group:** II
· **Proper shipping name (technical name):** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)
· **Label:** 3+6.1

· **Land transport ADR/RID (cross-border):**



· **ADR/RID class:** 3 Flammable liquids
· **Danger code (Kemler):** 336
· **UN-Number:** 1992
· **Packing group:** II
· **Label:** 3+6.1
· **Description of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **Maritime transport IMDG:**



· **IMDG Class:** 3
· **UN Number:** 1992
· **Label:** 3+6.1
· **Packaging group:** II
· **EMS Number:** F-E,S-D
· **Marine pollutant:** No
· **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3
· **UN/ID Number:** 1992
· **Label:** 3+6.1
· **Packaging group:** II
· **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

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Trade name: VO IND. BLENDS MIX A

(Contd. of page 5)

· **UN "Model Regulation":** UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

75-34-3 1,1-dichloroethane
67-66-3 trichloromethane

· **Section 313 (Specific toxic chemical listings):**

67-56-1 methanol
79-34-5 1,1,2,2-tetrachloroethane
79-00-5 1,1,2-trichloroethane
75-34-3 1,1-dichloroethane
75-35-4 1,1-dichloroethylene
107-06-2 1,2-dichloroethane
78-87-5 1,2-dichloropropane
75-25-2 bromoform
56-23-5 carbon tetrachloride
108-90-7 chlorobenzene
67-66-3 trichloromethane
75-09-2 dichloromethane
127-18-4 tetrachloroethylene
79-01-6 trichloroethylene

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

79-34-5 1,1,2,2-tetrachloroethane
79-00-5 1,1,2-trichloroethane
75-34-3 1,1-dichloroethane
107-06-2 1,2-dichloroethane
78-87-5 1,2-dichloropropane
75-25-2 bromoform
56-23-5 carbon tetrachloride
67-66-3 trichloromethane
75-09-2 dichloromethane
127-18-4 tetrachloroethylene
79-01-6 trichloroethylene

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

79-34-5	1,1,2,2-tetrachloroethane	C
79-00-5	1,1,2-trichloroethane	C
75-34-3	1,1-dichloroethane	C
75-35-4	1,1-dichloroethylene	S, I
107-06-2	1,2-dichloroethane	B2
75-25-2	bromoform	B2
56-23-5	carbon tetrachloride	B2
108-90-7	chlorobenzene	D
67-66-3	trichloromethane	NL

(Contd. on page 7)

USA

Trade name: VO IND. BLENDS MIX A

(Contd. of page 6)

124-48-1	dibromochloromethane	C
75-09-2	dichloromethane	B2
- IARC (International Agency for Research on Cancer)		
79-34-5	1,1,2,2-tetrachloroethane	3
79-00-5	1,1,2-trichloroethane	3
75-35-4	1,1-dichloroethylene	3
107-06-2	1,2-dichloroethane	2B
78-87-5	1,2-dichloropropane	3
75-25-2	bromoform	3
56-23-5	carbon tetrachloride	2B
67-66-3	trichloromethane	2B
124-48-1	dibromochloromethane	3
75-09-2	dichloromethane	2B
127-18-4	tetrachloroethylene	2A
79-01-6	trichloroethylene	2A
- NTP (National Toxicology Program)		
107-06-2	1,2-dichloroethane	R
56-23-5	carbon tetrachloride	R
67-66-3	trichloromethane	R
75-09-2	dichloromethane	R
127-18-4	tetrachloroethylene	R
79-01-6	trichloroethylene	R
- TLV (Threshold Limit Value established by ACGIH)		
79-34-5	1,1,2,2-tetrachloroethane	A3
79-00-5	1,1,2-trichloroethane	A3
75-34-3	1,1-dichloroethane	A4
75-35-4	1,1-dichloroethylene	A4
107-06-2	1,2-dichloroethane	A4
78-87-5	1,2-dichloropropane	A4
75-25-2	bromoform	A3
56-23-5	carbon tetrachloride	A2
108-90-7	chlorobenzene	A3
67-66-3	trichloromethane	A3
75-09-2	dichloromethane	A3
127-18-4	tetrachloroethylene	A3
79-01-6	trichloroethylene	A2
- NIOSH-Ca (National Institute for Occupational Safety and Health)		
79-34-5	1,1,2,2-tetrachloroethane	
79-00-5	1,1,2-trichloroethane	
75-35-4	1,1-dichloroethylene	
107-06-2	1,2-dichloroethane	
78-87-5	1,2-dichloropropane	
56-23-5	carbon tetrachloride	
67-66-3	trichloromethane	
75-09-2	dichloromethane	
127-18-4	tetrachloroethylene	
79-01-6	trichloroethylene	
- OSHA-Ca (Occupational Safety & Health Administration)		
75-09-2	dichloromethane	

- **Product related hazard informations:** The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**



(Contd. on page 8)

USA

Trade name: VO IND. BLENDS MIX A

(Contd. of page 7)

- **Hazard-determining components of labelling:**

methanol

- **Risk phrases:**

Highly flammable.

Toxic by inhalation, in contact with skin and if swallowed.

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

- **Safety phrases:**

Keep locked up and out of the reach of children.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Wear suitable protective clothing, gloves and eyeface protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** product safety department

- **Contact:**

SPEX CertiPrep Inc.

732-549-7144

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOG: Volatile Organic Compounds (USA, EU)

LCSO: Lethal concentration, 50 percent

LDSO: Lethal dose, 50 percent

USA

1 Identification of substance

- **Product details**
- **Trade name:** Custom Organic
- **Article number:** NEAT-2458
- **Application of the substance / the preparation**
- **Manufacturer/Supplier:**
SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization:**
- **CAS No. Description**
135-23-9 methapyrilene hydrochloride
- **Identification number(s)**
- **EINECS Number:** 205-184-8

3 Hazards identification

- **Hazard description:**



Harmful

- **Information pertaining to particular dangers for man and environment:**
Harmful if swallowed.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **GHS label elements**



Warning

3.1/4 - Harmful if swallowed.

- **Prevention:**
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
- **Response:**
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.
- **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

- **General information:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.

(Contd. on page 2)
USA

Trade name: Custom Organic

- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.

(Contd. of page 1)

5 Fire fighting measures

- **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

9 Physical and chemical properties

General Information

Form:	Solid
Odour:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Product is not flammable.
Danger of explosion:	Product does not present an explosion hazard.
Density:	Not determined.

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USA

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: Custom Organic

(Contd. of page 2)

Solubility in / Miscibility with
Water: Insoluble.
Organic solvents: 0.0 %
Solids content: 100.0 %

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- Dangerous reactions:** No dangerous reactions known.
- Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:**
- Primary irritant effect:**
- on the skin:** No irritant effect.
- on the eye:** No irritating effect.
- Sensitization:** No sensitizing effects known.

12 Ecological information

- General notes:**
- Water hazard class 1 (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- Product:**
- Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:**
- Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- Maritime transport IMDG:**
- Marine pollutant:** No

15 Regulations

- Sara**
- Section 355 (extremely hazardous substances):**
Substance is not listed.
- Section 313 (Specific toxic chemical listings):**
Substance is not listed.
- TSCA (Toxic Substances Control Act):**
Substance is listed.
- Proposition 65**
- Chemicals known to cause cancer:**
Substance is not listed.
- Chemicals known to cause reproductive toxicity for females:**
Substance is not listed.
- Chemicals known to cause reproductive toxicity for males:**
Substance is not listed.
- Chemicals known to cause developmental toxicity:**
Substance is not listed.

(Contd. on page 4)

USA

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: Custom Organic

(Contd. of page 3)

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

Hazard symbols:



Harmful

Risk phrases:

Harmful if swallowed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: product safety department

Contact:

SPEX CertiPrep Inc.
732-549-7144

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

USA

1 Identification of substance

- **Product details**
- **Trade name:** Custom Organic
- **Article number:** NEAT-3505
- **Application of the substance / the preparation**
- **Manufacturer/Supplier:**
SPEX CeriPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization:**
- **CAS No. Description**
108-88-3 toluene
- **Identification number(s)**
- **EINECS Number:** 203-625-9
- **Index number:** 601-021-00-3

3 Hazards identification

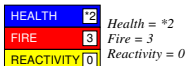
- **Hazard description:**
- 
- Repr. Cat. 3
Harmful
Highly flammable

- **Information pertaining to particular dangers for man and environment:**
Highly flammable.
Irritating to skin.
Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Possible risk of harm to the unborn child.
Harmful: may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **GHS label elements**



2.6/2 - Highly flammable liquid and vapour.



3.10/1 - May be fatal if swallowed and enters airways.
3.7/2 - Suspected of damaging fertility or the unborn child.
3.9/2 - May cause damage to organs through prolonged or repeated exposure.

(Contd. on page 2)
USA

Trade name: Custom Organic

(Contd. of page 1)



Warning

- 3.2/2 - Causes skin irritation.
- 3.8/5 - May cause drowsiness or dizziness.

Warning

- 3.1/5 - May be harmful if swallowed.

Prevention:

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Use explosion-proof electrical/ventilating/lighting/equipment.

Response:

- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Storage:

- Store locked up.

Disposal:

- Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

- **General information:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage:**
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 3)

USA

Trade name: Custom Organic

(Contd. of page 2)

Components with limit values that require monitoring at the workplace:

108-88-3 toluene

PEL Short-term value: C 300; 500* ppm
Long-term value: 200 ppm
*10-min peak per 8-hr shift
REL Short-term value: 560 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
TLV 75 mg/m³, 20 ppm
NIC-BE1

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

General Information

Form: Fluid
Color: Colorless
Odor: Aromatic

Change in condition

Melting point/Melting range: -95°C (-139°F)
Boiling point/Boiling range: 110°C (230°F)

Flash point: 4°C (39°F)

Ignition temperature: 535°C (995°F)

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:

Lower: 1.2 Vol %
Upper: 7 Vol %

Vapor pressure at 20°C (68°F): 29 hPa (22 mm Hg)

Density at 20°C (68°F): 0.87 g/cm³

Solubility in / Miscibility with

Water at 15°C (59°F): 0.5 g/l

(Contd. on page 4)

USA

Trade name: Custom Organic

(Contd. of page 3)

Organic solvents: 100.0 %
VOC content: 100.0 %
870.0 g/l / 7.26 lb/gal

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions No dangerous reactions known.
- Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.

12 Ecological information

General notes:

Water hazard class 2 (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

- Product:
- Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class: 3
Identification number: UN1294
Packing group: II
Proper shipping name (technical name): TOLUENE
Label: 3

Land transport ADR/RID (cross-border):



ADR/RID class: 3 Flammable liquids
Danger code (Kemler): 33
UN-Number: 1294

(Contd. on page 5)

USA

Trade name: Custom Organic

(Contd. of page 4)

- Packaging group: II
- Label: 3
- Description of goods: 1294 TOLUENE

- Maritime transport IMDG:



- IMDG Class: 3
- UN Number: 1294
- Label: 3
- Packaging group: II
- EMS Number: F-E,S-D
- Marine pollutant: No
- Proper shipping name: TOLUENE

- Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
- UN/ID Number: 1294
- Label: 3
- Packaging group: II
- Proper shipping name: TOLUENE

- UN "Model Regulation": UN1294, TOLUENE, 3, II

15 Regulations

- Sara

- Section 355 (extremely hazardous substances):

Substance is not listed.

- Section 313 (Specific toxic chemical listings):

Substance is listed.

- TSCA (Toxic Substances Control Act):

Substance is listed.

- Proposition 65

- Chemicals known to cause cancer:

Substance is not listed.

- Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

- Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

- Chemicals known to cause developmental toxicity:

Substance is listed.

- Carcinogenic categories

- EPA (Environmental Protection Agency)

108-88-3 toluene

II

- IARC (International Agency for Research on Cancer)

108-88-3 toluene

3

- NTP (National Toxicology Program)

Substance is not listed.

- TLV (Threshold Limit Value established by ACGIH)

108-88-3 toluene

A4

- NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

(Contd. on page 6)

USA

Trade name: Custom Organic

(Contd. of page 5)

- OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

- Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

- Hazard symbols:



Repr. Cat. 3
Harmful
Highly flammable

- Risk phrases:

Highly flammable.
Irritating to skin.
Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Possible risk of harm to the unborn child.
Harmful: may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness.

- Safety phrases:

Keep out of the reach of children.
Wear suitable protective clothing and gloves.
If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: product safety department

- Contact:

SPEX CertiPrep Inc.

732-549-7144

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

Printing date 08/06/2010

Reviewed on 07/28/2010

1 Identification of substance

- **Product details**
- **Trade name:** Custom Organic Standard-Unleaded Gasoline
- **Article number:** NEAT-1273
- **Application of the substance / the preparation**
- **Manufacturer/Supplier:**
SPEX CeriPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization:**
- **CAS No. Description**
86290-81-5 Gasoline
- **Identification number(s)**
- **EINECS Number:** 289-220-8
- **Index number:** 649-378-00-4
- **Chemical characterization**
- **Description:**
- **Dangerous components:** Void

3 Hazards identification

- **Hazard description:**



Toxic

- **Information pertaining to particular dangers for man and environment:**
May cause cancer.
May cause heritable genetic damage.
Harmful: may cause lung damage if swallowed.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **GHS label elements**



Danger

- 3.6/IB - May cause cancer.
- 3.10/I - May be fatal if swallowed and enters airways.

- **Prevention:**
Use personal protective equipment as required.
- **Response:**
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.
Do NOT induce vomiting.

(Contd. on page 2)

USA

Printing date 08/06/2010

Reviewed on 07/28/2010

Trade name: Custom Organic Standard-Unleaded Gasoline

- **Storage:**
Store locked up.
- **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. of page 1)

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**

86290-81-5 Gasoline

REL (LOQ 15 ppm)
TLV Short-term value: 1480 mg/m ³ , 500 ppm
Long-term value: 890 mg/m ³ , 300 ppm
Bulk handling

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

(Contd. on page 3)

USA

Trade name: Custom Organic Standard-Unleaded Gasoline

(Contd. of page 2)

- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- General Information

Form: Solid
Odour: Characteristic

- Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Product is not flammable.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density:** Not determined.

- Solubility in / Miscibility with

Water: Insoluble.

- Solvent content:

Organic solvents: 0.0 %

- **Solids content:** 100.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

- **Product:**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 4)

USA

Trade name: Custom Organic Standard-Unleaded Gasoline

(Contd. of page 3)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 3 Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1203
- **Packaging group:** II
- **Label:** 3
- **Description of goods:** 1203 MOTOR SPIRIT

- **Maritime transport IMDG:**

- **EMS Number:** F-E,S-D
- **Marine pollutant:** No

- **UN "Model Regulation":** UN1203, MOTOR SPIRIT, 3, II

15 Regulations

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

None of the ingredients is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **IARC (International Agency for Research on Cancer)**

86290-81-5 Gasoline

2B

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

86290-81-5 Gasoline

A3

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

All ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Product related hazard informations:** The product has been classified and marked in accordance with directives on hazardous materials.

(Contd. on page 5)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 5/5

Printing date 08/06/2010

Reviewed on 07/28/2010

Trade name: Custom Organic Standard-Unleaded Gasoline

(Contd. of page 4)

Hazard symbols:



Toxic

Risk phrases:

May cause cancer.
May cause heritable genetic damage.
Harmful: may cause lung damage if swallowed.

Safety phrases:

Avoid exposure - obtain special instructions before use.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: product safety department

Contact:
SPEX CeriPrep Inc.
732-549-7144

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 1/8

Printing date 08/06/2010

Reviewed on 07/12/2010

1 Identification of substance

Product details

Trade name: PURGEABLE AROMATICS FOR GASOLI
Article number: P-GAS
Application of the substance / the preparation
Manufacturer/Supplier:
SPEX CeriPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

Information department: product safety department

Emergency information:
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

Chemical characterization

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-56-1	methanol	Danger: ⚠ 2.6/2; ⚠ 3.1.O/3, 3.1.D/3, 3.1.I/3; ⚠ 3.8/1	97.8%
95-50-1	1,2-dichlorobenzene	Warning: ⚠ 4.1.C/1; ⚠ 3.1.O/4, 3.2/2, 3.3/2A, 3.8/3	0.2%
541-73-1	1,3-dichlorobenzene	Warning: ⚠ 3.1.O/4 ⚠ 4.1.C/2	0.2%
106-46-7	1,4-dichlorobenzene	Warning: ⚠ 3.6/2; ⚠ 4.1.C/1; ⚠ 3.3/2A	0.2%
71-43-2	benzene	Danger: ⚠ 2.6/2; ⚠ 3.5/1B, 3.6/1A, 3.9/1, 3.10/1 Warning: ⚠ 3.2/2, 3.3/2A	0.2%
108-90-7	chlorobenzene	Warning: ⚠ 2.6/3; ⚠ 3.1.I/4 ⚠ 4.1.C/2	0.2%

Chemical identification of the substance/preparation

1634-04-4	tert-butyl methyl ether	Danger: ⚠ 2.6/2 Warning: ⚠ 3.2/2	0.2%
108-38-3	m-xylene	Warning: ⚠ 2.6/3; ⚠ 3.1.D/4, 3.1.I/4, 3.2/2	0.2%
95-47-6	o-xylene	Warning: ⚠ 2.6/3; ⚠ 3.1.D/4, 3.1.I/4, 3.2/2	0.2%
106-42-3	p-xylene	Warning: ⚠ 2.6/3; ⚠ 3.1.D/4, 3.1.I/4, 3.2/2	0.2%
108-88-3	toluene	Danger: ⚠ 2.6/2; ⚠ 3.10/1, 3.7/2, 3.9/2 Warning: ⚠ 3.2/2, 3.8/3	0.2%
100-41-4	ethylbenzene	Danger: ⚠ 2.6/2 Warning: ⚠ 3.1.I/4	0.2%

3 Hazards identification

Hazard description:



Toxic
Highly flammable

Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of international guidelines.

May cause cancer.
May cause heritable genetic damage.
Highly flammable.

Also toxic by inhalation, in contact with skin and if swallowed.

Also toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)



Health = 3
Fire = 3
Reactivity = 0

(Contd. on page 2)

USA

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 1)

HMIS-ratings (scale 0 - 4)

HEALTH	3	Health = *3
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

GHS label elements



Danger

2.6/2 - Highly flammable liquid and vapour.



Danger

3.1/2 - Fatal if inhaled.



Danger

3.5/1B - May cause genetic defects.

3.6/1A - May cause cancer.

3.8/1 - Causes damage to organs.

4.1/3 - Harmful to aquatic life with long lasting effects.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Immediately call a POISON CENTER or doctor/physician.

Specific treatment is urgent (see on this label).

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/surface or ground water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 3)

USA

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 2)

Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

Storage:

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

67-56-1 methanol

PEL 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm

Long-term value: 260 mg/m³, 200 ppm

Skin

TLV Short-term value: 328 mg/m³, 250 ppm

Long-term value: 262 mg/m³, 200 ppm

Skin; BEI

71-43-2 benzene

PEL Short-term value: 15* mg/m³, 5* ppm

Long-term value: 3* mg/m³, 1* ppm

*table Z-2 for exclusions in 29CFR1910.1028

REL Short-term value: 3.2 mg/m³, 1 ppm

Long-term value: 0.32 mg/m³, 0.1 ppm

TLV Short-term value: 8 mg/m³, 2.5 ppm

Long-term value: 1.6 mg/m³, 0.5 ppm

Skin; BEI

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 4/8

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 3)

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

General Information	
Form:	Fluid
Color:	According to product specification
Odor:	Characteristic
Change in condition	
Melting point/Melting range:	-98°C (-144°F)
Boiling point/Boiling range:	64°C (147°F)
Flash point:	11°C (52°F)
Ignition temperature:	455°C (851°F)
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Explosion limits:	
Lower:	5,5 Vol %
Upper:	44 Vol %
Vapor pressure at 20°C (68°F):	128 hPa (96 mm Hg)
Density at 20°C (68°F):	0,79 g/cm ³
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Solvent content:	
Organic solvents:	99,4 %
VOC content:	99,4 %
	790,1 g/l / 6,59 lb/gal
Solids content:	0,2 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
67-56-1 methanol		
Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)
95-50-1 1,2-dichlorobenzene		
Oral	LD50	500 mg/kg (rat)
106-46-7 1,4-dichlorobenzene		
Oral	LD50	500 mg/kg (rat)

(Contd. on page 5)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 5/8

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 4)

71-43-2 benzene		
Oral	LD50	4894 mg/kg (rat)
Dermal	LD50	48 mg/kg (mouse)
Inhalative	LC50/4 h	9980 mg/l (mouse)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic
Carcinogenic.
The product can cause inheritable damage.



12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Harmful to aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**
- 
- **Hazard class:** 3
- **Identification number:** UN1992
- **Packing group:** II
- **Proper shipping name (technical name):** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)
- **Label:** 3+6.1
- **Land transport ADR/RID (cross-border):**
- 
- **ADR/RID class:** 3 Flammable liquids
- **Danger code (Kemler):** 336
- **UN-Number:** 1992
- **Packaging group:** II
- **Label:** 3+6.1
- **Description of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

(Contd. on page 6)

USA

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 5)

Maritime transport IMDG:



IMDG Class: 3
UN Number: 1992
Label: 3+6.1
Packaging group: II
EMS Number: F-E,S-D
Marine pollutant: No
Propper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
UN/ID Number: 1992
Label: 3+6.1
Packaging group: II
Propper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

UN "Model Regulation": UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

15 Regulations

Sara

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

All ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

106-46-7 1,4-dichlorobenzene
71-43-2 benzene

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

71-43-2 benzene

Chemicals known to cause developmental toxicity:

71-43-2 benzene
108-88-3 toluene

Carcinogenic categories

EPA (Environmental Protection Agency)

108-38-3	m-xylene	I
95-50-1	1,2-dichlorobenzene	D
541-73-1	1,3-dichlorobenzene	D
71-43-2	benzene	A
95-47-6	o-xylene	I
108-90-7	chlorobenzene	D
106-42-3	p-xylene	I
108-88-3	toluene	II
100-41-4	ethylbenzene	D

(Contd. on page 7)

USA

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 6)

IARC (International Agency for Research on Cancer)

1634-04-4	tert-butyl methyl ether	3
108-38-3	m-xylene	3
95-50-1	1,2-dichlorobenzene	3
541-73-1	1,3-dichlorobenzene	3
106-46-7	1,4-dichlorobenzene	2B
71-43-2	benzene	I
95-47-6	o-xylene	3
106-42-3	p-xylene	3
108-88-3	toluene	3
100-41-4	ethylbenzene	2B

NTP (National Toxicology Program)

106-46-7	1,4-dichlorobenzene	R
71-43-2	benzene	K

TLV (Threshold Limit Value established by ACGIH)

1634-04-4	tert-butyl methyl ether	A3
108-38-3	m-xylene	A4
95-50-1	1,2-dichlorobenzene	A4
106-46-7	1,4-dichlorobenzene	A3
71-43-2	benzene	A1
95-47-6	o-xylene	A4
108-90-7	chlorobenzene	A3
106-42-3	p-xylene	A4
108-88-3	toluene	A4
100-41-4	ethylbenzene	A3

NIOSH-Ca (National Institute for Occupational Safety and Health)

106-46-7	1,4-dichlorobenzene	
71-43-2	benzene	

OSHA-Ca (Occupational Safety & Health Administration)

71-43-2	benzene	
---------	---------	--

Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

Hazard symbols:



Hazard-determining components of labelling:

methanol
benzene

Risk phrases:

May cause cancer.
May cause heritable genetic damage.
Highly flammable.
Also toxic by inhalation, in contact with skin and if swallowed.
Also toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

Avoid exposure - obtain special instructions before use.
Keep locked up and out of the reach of children.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
In case of accident by inhalation: remove casualty to fresh air and keep at rest.

(Contd. on page 8)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 8/8

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: PURGEABLE AROMATICS FOR GASOLI

(Contd. of page 7)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** product safety department

· **Contact:**

SPEX CertiPrep Inc.
732-549-7144

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

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Printing date 08/06/2010

Reviewed on 03/11/2010

1 Identification of substance

· **Product details**

· **Trade name:** **TCLP VOLATILES SPIKE B (NO VIN)**

· **Article number:** TCLP-V

· **Application of the substance / the preparation:** Certified Reference Material

· **Manufacturer/Supplier:**

SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

· **Information department:** product safety department

· **Emergency information:**

Emergency Phone Number (24 hours)

CHEMTREC (800-424-9300)

Outside US: 703-527-3887

2 Composition/Data on components

· **Chemical characterization**

Description: Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

67-56-1	methanol	Danger: ⚠ 2.6/2; ⚠ 3.1.O/3, 3.1.D/3, 3.1.I/3; ⚠ 3.8/1	97.2%
78-93-3	butanone	Danger: ⚠ 2.6/2 Warning: ⚠ 3.3/2A, 3.8/3	1.0%
107-06-2	1,2-dichloroethane	Danger: ⚠ 2.6/2; ⚠ 3.6/1B Warning: ⚠ 3.1.O/4, 3.2/2, 3.3/2A, 3.8/3	0.2%
106-46-7	1,4-dichlorobenzene	Warning: ⚠ 3.6/2; ⚠ 4.1.C/1; ⚠ 3.3/2A	0.2%
71-43-2	benzene	Danger: ⚠ 2.6/2; ⚠ 3.5/1B, 3.6/1A, 3.9/1, 3.10/1 Warning: ⚠ 3.2/2, 3.3/2A	0.2%
56-23-5	carbon tetrachloride	Danger: ⚠ 3.1.O/3, 3.1.D/3, 3.1.I/3; ⚠ 3.9/1, 3.6/2 4.1.C/3	0.2%
108-90-7	chlorobenzene	Warning: ⚠ 2.6/3; ⚠ 3.1.I/4 ⚠ 4.1.C/2	0.2%
127-18-4	tetrachloroethylene	Warning: ⚠ 3.6/2 ⚠ 4.1.C/2	0.2%
79-01-6	trichloroethylene	Danger: ⚠ 3.6/1B, 3.5/2 Warning: ⚠ 3.2/2, 3.3/2A, 3.8/3 4.1.C/3	0.2%

· **Chemical identification of the substance/preparation**

75-35-4	1,1-dichloroethylene	Danger: ⚠ 2.6/1 Warning: ⚠ 3.6/2; ⚠ 3.1.I/4	0.2%
67-66-3	trichloromethane	Warning: ⚠ 3.6/2, 3.9/2; ⚠ 3.1.O/4, 3.2/2	0.2%

3 Hazards identification

· **Hazard description:**



Toxic
Highly flammable
Dangerous for the environment

· **Information pertaining to particular dangers for man and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.

May cause cancer.

May cause heritable genetic damage.

Highly flammable.

Also toxic by inhalation, in contact with skin and if swallowed.

Also toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Also harmful: danger of serious damage to health by prolonged exposure through inhalation.

Dangerous for the ozone layer.

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

(Contd. on page 2)

USA

Trade name: **TCLP VOLATILES SPIKE B (NO VIN)**

(Contd. of page 1)

NFPA ratings (scale 0 - 4)



Health = 3
Fire = 3
Reactivity = 0

HMS-ratings (scale 0 - 4)



Health = *3
Fire = 3
Reactivity = 0

GHS label elements



Danger

2.6/2 - Highly flammable liquid and vapour.



Danger

3.1/2 - Fatal if inhaled.



Danger

3.5/1B - May cause genetic defects.
3.6/1A - May cause cancer.
3.8/1 - Causes damage to organs.
3.9/2 - May cause damage to organs through prolonged or repeated exposure.

Prevention:
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see on this label).

Storage:
Store locked up.

Disposal:
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.
For safety reasons unsuitable extinguishing agents: Water with full jet
Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

(Contd. on page 3)

USA

Trade name: **TCLP VOLATILES SPIKE B (NO VIN)**

(Contd. of page 2)

Measures for environmental protection:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/surface or ground water.

Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

Handling:
Information for safe handling:
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

Storage:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.
Components with limit values that require monitoring at the workplace:

67-56-1 methanol

REL Short-term value: 260 mg/m³, 200 ppm
Long-term value: 325 mg/m³, 250 ppm
Skin
TLV Short-term value: 328 mg/m³, 250 ppm
Long-term value: 262 mg/m³, 200 ppm
Skin; BEI

78-93-3 butanone

REL Short-term value: 590 mg/m³, 200 ppm
Long-term value: 885 mg/m³, 300 ppm
TLV Short-term value: 885 mg/m³, 300 ppm
Long-term value: 590 mg/m³, 200 ppm
BEI

107-06-2 1,2-dichloroethane

REL Short-term value: C 100; 200* ppm
Long-term value: 50 ppm
*5-min peak in any 3 hrs
REL Short-term value: 8 mg/m³, 2 ppm
Long-term value: 4 mg/m³, 1 ppm
TLV 40 mg/m³, 10 ppm

71-43-2 benzene

REL Short-term value: 15* mg/m³, 5* ppm
Long-term value: 3* mg/m³, 1* ppm
*table Z-2 for exclusions in 29CFR1910.1028
REL Short-term value: 3.2 mg/m³, 1 ppm
Long-term value: 0.32 mg/m³, 0.1 ppm
TLV Short-term value: 8 mg/m³, 2.5 ppm
Long-term value: 1.6 mg/m³, 0.3 ppm
Skin; BEI

(Contd. on page 4)

USA

Trade name: **TCLP VOLATILES SPIKE B (NO VIN)**

(Contd. of page 3)

56-23-5 carbon tetrachloride

PEL Short-term value: C 25; 200* ppm
Long-term value: 10 ppm
*5-min peak in any 3 hrs
REL Short-term value: 12.6* mg/m³, 2* ppm
*60-min
TLV Short-term value: 63 mg/m³, 10 ppm
Long-term value: 31 mg/m³, 5 ppm
Skin

79-01-6 trichloroethylene

PEL Short-term value: C 200; 300* ppm
Long-term value: 100 ppm
*5-min peak in any 2 hrs
REL Short-term value: C 2* ppm
Long-term value: 25 ppm
*60-min as a waste anesthetic gas)
TLV Short-term value: 135 mg/m³, 25 ppm
Long-term value: 54 mg/m³, 10 ppm
(BEI)

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form: Fluid
Color: According to product specification
Odor: Characteristic

- **Change in condition**

Melting point/Melting range: -98°C (-144°F)
Boiling point/Boiling range: 64°C (147°F)

- **Flash point:**

11°C (52°F)

- **Ignition temperature:**

455°C (851°F)

(Contd. on page 5)

USA

Trade name: **TCLP VOLATILES SPIKE B (NO VIN)**

(Contd. of page 4)

- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
Lower: 5.5 Vol %
Upper: 44 Vol %
- **Vapor pressure at 20°C (68°F):** 128 hPa (96 mm Hg)
- **Density at 20°C (68°F):** 0.79 g/cm³
- **Solubility in / Miscibility with**
Water: Not miscible or difficult to mix.
- **Solvent content:**
Organic solvents: 99.0 %
VOC content: 99.0 %
792.0 g/l / 6.61 lb/gal
- **Solids content:** 0.2 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

67-56-1 methanol

Oral LD50 5628 mg/kg (rat)
Dermal LD50 15800 mg/kg (rabbit)

107-06-2 1,2-dichloroethane

Oral LD50 670 mg/kg (rat)
Dermal LD50 2800 mg/kg (rat)

106-46-7 1,4-dichlorobenzene

Oral LD50 500 mg/kg (rat)

71-43-2 benzene

Oral LD50 4894 mg/kg (rat)
Dermal LD50 48 mg/kg (mouse)
Inhalative LC50/4 h 9980 mg/l (mouse)

56-23-5 carbon tetrachloride

Oral LD50 2350 mg/kg (rat)
Dermal LD50 5070 mg/kg (rat)

79-01-6 trichloroethylene

Oral LD50 2402 mg/kg (mouse)
Dermal LD50 8450 mg/kg (mouse)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic
Carcinogenic.
The product can cause inheritable damage.

(Contd. on page 6)

USA

Trade name: **TCLP VOLATILES SPIKE B (NO VIN)**

(Contd. of page 5)

12 Ecological information

General notes:
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

13 Disposal considerations

Product:
Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class: 3
Identification number: UN1992
Packing group: II
Proper shipping name (technical name): FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)
Label: 3+6.1

Land transport ADR/RID (cross-border):



ADR/RID class: 3 Flammable liquids
Danger code (Kemler): 336
UN-Number: 1992
Packing group: II
Label: 3+6.1
Description of goods: 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

Maritime transport IMDG:



IMDG Class: 3
UN Number: 1992
Label: 3+6.1
Packing group: II
EMS Number: F-E,S-D
Marine pollutant: No
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
UN/ID Number: 1992
Label: 3+6.1
Packing group: II
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

(Contd. on page 7)

Trade name: **TCLP VOLATILES SPIKE B (NO VIN)**

(Contd. of page 6)

UN "Model Regulation": UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

15 Regulations

Sara

Section 355 (extremely hazardous substances):

67-66-3 trichloromethane

Section 313 (Specific toxic chemical listings):

All ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

107-06-2 1,2-dichloroethane
106-46-7 1,4-dichlorobenzene
71-43-2 benzene
56-23-5 carbon tetrachloride
67-66-3 trichloromethane
127-18-4 tetrachloroethylene
79-01-6 trichloroethylene

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

71-43-2 benzene

Chemicals known to cause developmental toxicity:

71-43-2 benzene

Carcinogenic categories

EPA (Environmental Protection Agency)

78-93-3	butanone	I
75-35-4	1,1-dichloroethylene	S, I
107-06-2	1,2-dichloroethane	B2
71-43-2	benzene	A
56-23-5	carbon tetrachloride	B2
108-90-7	chlorobenzene	D
67-66-3	trichloromethane	NL

IARC (International Agency for Research on Cancer)

75-35-4	1,1-dichloroethylene	3
107-06-2	1,2-dichloroethane	2B
106-46-7	1,4-dichlorobenzene	2B
71-43-2	benzene	I
56-23-5	carbon tetrachloride	2B
67-66-3	trichloromethane	2B
127-18-4	tetrachloroethylene	2A
79-01-6	trichloroethylene	2A

NTP (National Toxicology Program)

107-06-2	1,2-dichloroethane	R
106-46-7	1,4-dichlorobenzene	R
71-43-2	benzene	K
56-23-5	carbon tetrachloride	R
67-66-3	trichloromethane	R
127-18-4	tetrachloroethylene	R
79-01-6	trichloroethylene	R

TLV (Threshold Limit Value established by ACGIH)

75-35-4	1,1-dichloroethylene	A4
107-06-2	1,2-dichloroethane	A4

(Contd. on page 8)

Material Safety Data Sheet
acc. to ISO/DIS 11014

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Printing date 08/06/2010

Reviewed on 03/11/2010

Trade name: TCLP VOLATILES SPIKE B (NO VIN)

(Contd. of page 7)

106-46-7	1,4-dichlorobenzene	A3
71-43-2	benzene	A1
56-23-5	carbon tetrachloride	A2
108-90-7	chlorobenzene	A3
67-66-3	trichloromethane	A3
127-18-4	tetrachloroethylene	A3
79-01-6	trichloroethylene	A2

-NIOSH-Ca (National Institute for Occupational Safety and Health)

75-35-4	1,1-dichloroethylene	
107-06-2	1,2-dichloroethane	
106-46-7	1,4-dichlorobenzene	
71-43-2	benzene	
56-23-5	carbon tetrachloride	
67-66-3	trichloromethane	
127-18-4	tetrachloroethylene	
79-01-6	trichloroethylene	

-OSHA-Ca (Occupational Safety & Health Administration)

71-43-2	benzene	
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· **Product related hazard informations:** The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Toxic
Highly flammable
Dangerous for the environment

· **Hazard-determining components of labelling:**

methanol
benzene
trichloroethylene
carbon tetrachloride
1,2-dichloroethane

· **Risk phrases:**

May cause cancer.
May cause heritable genetic damage.
Highly flammable.
Also toxic by inhalation, in contact with skin and if swallowed.
Also toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Also harmful: danger of serious damage to health by prolonged exposure through inhalation.
Dangerous for the ozone layer.

· **Safety phrases:**

Avoid exposure - obtain special instructions before use.
Keep locked up and out of the reach of children.
Do not empty into drains.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Refer to manufacturer/supplier for information on recovery/recycling.
In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** product safety department

· **Contact:**

SPEX CertiPrep Inc.
732-549-7144

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

(Contd. on page 9)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

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Printing date 08/06/2010

Reviewed on 03/11/2010

Trade name: TCLP VOLATILES SPIKE B (NO VIN)

(Contd. of page 8)

ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

1 Identification of substance

- **Product details**
- **Trade name:** **TRihalOMETHANES**
- **Article number:** THM-X-400
- **Application of the substance / the preparation**
- **Manufacturer/Supplier:**
SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:			
67-56-1	methanol	Danger: 2.6/2; 3.1.O/3, 3.1.D/3, 3.1.I/3; 3.8/1	99.84%
- Chemical identification of the substance/preparation			
75-27-4	bromodichloromethane	Warning: 3.1.O/4	0.04%
75-25-2	bromoform	Danger: 3.1.I/3, 3.2/2, 3.3/2A 4.1.C/2	0.04%
67-66-3	trichloromethane	Warning: 3.6/2, 3.9/2; 3.1.O/4, 3.2/2	0.04%
124-48-1	dibromochloromethane	Warning: 3.1.O/4	0.04%

3 Hazards identification

- **Hazard description:**



Toxic
Highly flammable

- **Information pertaining to particular dangers for man and environment:**
The product has to be labelled due to the calculation procedure of international guidelines.
Highly flammable.
Toxic by inhalation, in contact with skin and if swallowed.
Toxic; danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **GHS label elements**



Danger

2.6/2 - Highly flammable liquid and vapour.



Danger

3.1/2 - Fatal if inhaled.

(Contd. on page 2)

USA

Trade name: TRIHALOMETHANES

(Contd. of page 1)



Danger

- 3.8/1 - Causes damage to organs.
- **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **Response:**
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see on this label).
- **Storage:**
Store locked up.
- **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

- **General information:**
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.

(Contd. on page 3)

USA

Trade name: TRIHALOMETHANES

(Contd. of page 2)

Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

67-56-1 methanol

PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm
	Skin: BEI

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

- **Change in condition**

Melting point/Melting range: -98°C (-144°F)
Boiling point/Boiling range: 64°C (147°F)

- **Flash point:** 11°C (52°F)

- **Ignition temperature:** 455°C (851°F)

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

(Contd. on page 4)

USA

Trade name: TRIHALOMETHANES

(Contd. of page 3)

- **Explosion limits:**

Lower: 5.5 Vol %
Upper: 44 Vol %

- **Vapor pressure at 20°C (68°F):** 128 hPa (96 mm Hg)

- **Density at 20°C (68°F):** 0.79 g/cm³

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

- **Solvent content:**
Organic solvents: 99.9 %
VOC content: 99.9 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Dangerous reactions:** No dangerous reactions known.

- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

12 Ecological information

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**

- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**



- **Hazard class:** 3

- **Identification number:** UN1992

- **Packing group:** II

- **Proper shipping name (technical name):** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

(Contd. on page 5)

USA

Trade name: TRIHALOMETHANES

(Contd. of page 4)

· Label 3+6.1

· Land transport ADR/RID (cross-border):



· ADR/RID class: 3 Flammable liquids

· Danger code (Kemler): 336

· UN-Number: 1992

· Packaging group: II

· Label: 3+6.1

· Description of goods: 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· Maritime transport IMDG:



· IMDG Class: 3

· UN Number: 1992

· Label: 3+6.1

· Packaging group: II

· EMS Number: F-E,S-D

· Marine pollutant: No

· Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: 3

· UN/ID Number: 1992

· Label: 3+6.1

· Packaging group: II

· Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· UN "Model Regulation": UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

67-66-3 trichloromethane

· Section 313 (Specific toxic chemical listings):

67-56-1 methanol

75-27-4 bromodichloromethane

75-25-2 bromoform

67-66-3 trichloromethane

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

75-27-4 bromodichloromethane

75-25-2 bromoform

67-66-3 trichloromethane

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

(Contd. on page 6)

USA

Trade name: TRIHALOMETHANES

(Contd. of page 5)

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

75-27-4 bromodichloromethane

B2

75-25-2 bromoform

B2

67-66-3 trichloromethane

NL

124-48-1 dibromochloromethane

C

· IARC (International Agency for Research on Cancer)

75-27-4 bromodichloromethane

2B

75-25-2 bromoform

3

67-66-3 trichloromethane

2B

124-48-1 dibromochloromethane

3

· NTP (National Toxicology Program)

75-27-4 bromodichloromethane

R

67-66-3 trichloromethane

R

· TLV (Threshold Limit Value established by ACGIH)

75-25-2 bromoform

A3

67-66-3 trichloromethane

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

67-66-3 trichloromethane

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:



· Hazard-determining components of labelling:

methanol

· Risk phrases:

Highly flammable.

Toxic by inhalation, in contact with skin and if swallowed.

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

· Safety phrases:

Keep locked up and out of the reach of children.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Wear suitable protective clothing, gloves and eyeface protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS: product safety department

· Contact:

SPEX CertiPrep Inc.

732-549-7144

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

(Contd. on page 7)

USA

Printing date 08/06/2010

Reviewed on 07/09/2010

Trade name: **TRihalOMETHANES**

(Contd. of page 6)

HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

Printing date 08/06/2010

Reviewed on 07/12/2010

1 Identification of substance

- Product details
- Trade name: **Custom 5 compound organic standard**
- Article number: XQ-1314
- Application of the substance / the preparation
- Manufacturer/Supplier:
SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840
- Information department: product safety department
- Emergency information:
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- Chemical characterization
- Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
67-56-1	methanol	Danger: 2.6/2; 3.1.O/3, 3.1.D/3, 3.1.I/3; 3.8/1 99.99%
Chemical identification of the substance/preparation		
462-06-6	fluorobenzene	Danger: 2.6/2 0.002%
105-53-3	diethyl malonate	Warning: 2.6/4 0.002%
3855-82-1	1,4-Dichlorobenzene-d4	Warning: 3.6/2; 4.1.C/1; 3.3/2A; 2.6/4 0.002%
3114-55-4	Chlorobenzene-d5	Warning: 2.6/3; 3.1.I/4; 4.1.C/2 0.002%
2037-26-5	(2HS)toluene	Danger: 2.6/2; 3.10/1, 3.7/2, 3.9/2; Warning: 3.2/2; 3.8/3 0.002%

3 Hazards identification

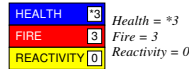
- Hazard description:



- Information pertaining to particular dangers for man and environment:
The product has to be labelled due to the calculation procedure of international guidelines.
Highly flammable.
Toxic: by inhalation, in contact with skin and if swallowed.
Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- Classification system:
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)



- GHS label elements



2.6/2 - Highly flammable liquid and vapour.

(Contd. on page 2)
USA

Trade name: Custom S compound organic standard

(Contd. of page 1)



Danger

3.1/2 - Fatal if inhaled.



Danger

3.8/1 - Causes damage to organs.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Immediately call a POISON CENTER or doctor/physician.

Specific treatment is urgent (see on this label).

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/surface or ground water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

7 Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

(Contd. on page 3)

USA

Trade name: Custom S compound organic standard

(Contd. of page 2)

Storage:

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

67-56-1 methanol

PEL 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm

Long-term value: 260 mg/m³, 200 ppm

Skin

TLV Short-term value: 328 mg/m³, 250 ppm

Long-term value: 262 mg/m³, 200 ppm

Skin; BEI

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

General Information

Form:

Fluid

Color:

According to product specification

Odor:

Characteristic

Change in condition

Melting point/Melting range: -98°C (-144°F)

Boiling point/Boiling range: 64°C (147°F)

Flash point:

11°C (52°F)

(Contd. on page 4)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 4/7

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: Custom 5 compound organic standard

(Contd. of page 3)

· Ignition temperature:	455°C (851°F)
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	5.5 Vol %
Upper:	44 Vol %
· Vapor pressure at 20°C (68°F):	128 hPa (96 mm Hg)
· Density at 20°C (68°F):	0.79 g/cm ³
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Solvent content:	
Organic solvents:	100.0 %
VOC content:	100.0 %
	789.9 g/l / 6.59 lb/gal

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:	
67-56-1 methanol	
Oral	LD50 5628 mg/kg (rat)
Dermal	LD50 15800 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic

12 Ecological information

- **General notes:**
- Water hazard class 1 (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

-USA

(Contd. on page 5)

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 5/7

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: Custom 5 compound organic standard

(Contd. of page 4)

14 Transport information

· **DOT regulations:**



- **Hazard class:** 3
- **Identification number:** UN1992
- **Packing group:** II
- **Proper shipping name (technical name):** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)
- **Label:** 3+6.1

· **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 3 Flammable liquids
- **Danger code (Kemler):** 336
- **UN-Number:** 1992
- **Packaging group:** II
- **Label:** 3+6.1
- **Description of goods:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1992
- **Label:** 3+6.1
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1992
- **Label:** 3+6.1
- **Packaging group:** II
- **Proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

- **UN "Model Regulation":** UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):**
- None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
- 67-56-1 methanol
- **TSCA (Toxic Substances Control Act):**
- 67-56-1 methanol
- 462-06-6 fluorobenzene
- 105-53-3 diethyl malonate

(Contd. on page 6)

-USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Page 6/7

Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: Custom S compound organic standard

(Contd. of page 5)

- Proposition 65

- Chemicals known to cause cancer:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Carcinogenic categories

- EPA (Environmental Protection Agency)

None of the ingredients is listed.

- IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

- NTP (National Toxicology Program)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

- NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

- Hazard symbols:



Toxic
Highly flammable

- Hazard-determining components of labelling:

methanol

- Risk phrases:

Highly flammable.

Toxic by inhalation, in contact with skin and if swallowed.

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

- Safety phrases:

Keep locked up and out of the reach of children.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: product safety department

- Contact:

SPEX CertiPrep Inc.

732-549-7144

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

(Contd. on page 7)

USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

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Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: Custom S compound organic standard

(Contd. of page 6)

LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

1 Identification of substance

- **Product details**
- **Trade name:** Custom
- **Article number:** XQ-3603
- **Application of the substance / the preparation** Certified Reference Material
- **Manufacturer/Supplier:**
SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

- **Information department:** product safety department
- **Emergency information:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:			
67-56-1	methanol	Danger: 2.6/2; 3.1.O/3, 3.1.D/3, 3.1.I/3; 3.8/1	99.96%
- Chemical identification of the substance/preparation			
119-36-8	methyl salicylate	Warning: 2.6/3; 3.1.O/4, 3.3/2A	0.01%
756-79-6	dimethyl methylphosphonate	Warning: 2.6/3	0.01%
84-66-2	diethyl phthalate		0.01%
126-73-8	tributyl phosphate	Warning: 3.6/2; 3.1.O/4, 3.2/2	0.01%

3 Hazards identification

Hazard description:



Toxic
Highly flammable

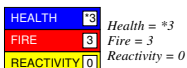
- **Information pertaining to particular dangers for man and environment:**
The product has to be labelled due to the calculation procedure of international guidelines.
Highly flammable.

Toxic by inhalation, in contact with skin and if swallowed.
Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

- **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



GHS label elements



2.6/2 - Highly flammable liquid and vapour.



3.1/2 - Fatal if inhaled.

(Contd. on page 2)
USA

Trade name: Custom

(Contd. of page 1)



- 3.8/1 - Causes damage to organs.
- **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **Response:**
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see on this label).
- **Storage:**
Store locked up.
- **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

- **General information:**
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.

(Contd. on page 3)
USA

Printing date 08/06/2010

Reviewed on 03/11/2010

Trade name: Custom

(Contd. of page 2)

Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

67-56-1 methanol

PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm
	Skin: BEI

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

General Information

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

Change in condition

Melting point/Melting range: -98°C (-144°F)
Boiling point/Boiling range: 64°C (147°F)

Flash point: 11°C (52°F)

Ignition temperature: 455°C (851°F)

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

(Contd. on page 4)

USA

Printing date 08/06/2010

Reviewed on 03/11/2010

Trade name: Custom

(Contd. of page 3)

Explosion limits:

Lower: 5.5 Vol %
Upper: 44 Vol %

Vapor pressure at 20°C (68°F): 128 hPa (96 mm Hg)

Density at 20°C (68°F): 0.79 g/cm³

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

Solvent content:

Organic solvents: 100.0 %
VOC content: 100.0 %
789.9 g/l / 6.59 lb/gal

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions: No dangerous reactions known.

Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

Primary irritant effect:

on the skin: No irritant effect.

on the eyes: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic

12 Ecological information

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

Product:

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class: 3

Identification number: UN1992

Packing group: II

Proper shipping name (technical name): FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

(Contd. on page 5)

USA

Trade name: Custom

(Contd. of page 4)

- Label 3+6.1

- Land transport ADR/RID (cross-border):



- ADR/RID class: 3 Flammable liquids
 - Danger code (Kemler): 336
 - UN-Number: 1992
 - Packaging group: II
 - Label: 3+6.1
 - Description of goods: 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

- Maritime transport IMDG:



- IMDG Class: 3
 - UN Number: 1992
 - Label: 3+6.1
 - Packaging group: II
 - EMS Number: F-E,S-D
 - Marine pollutant: No
 - Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

- Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
 - UN/ID Number: 1992
 - Label: 3+6.1
 - Packaging group: II
 - Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANOL)

- UN "Model Regulation": UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II

15 Regulations

- Sara
- Section 355 (extremely hazardous substances):
None of the ingredients is listed.
- Section 313 (Specific toxic chemical listings):
67-56-1 methanol
- TSCA (Toxic Substances Control Act):
All ingredients are listed.
- Proposition 65
- Chemicals known to cause cancer:
None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
- Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
- Carcinogenic categories
- EPA (Environmental Protection Agency)
84-66-2 diethyl phthalate

(Contd. on page 6)

USA

Trade name: Custom

(Contd. of page 5)

- IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

- NTP (National Toxicology Program)

None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)

84-66-2 diethyl phthalate

A4

- NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials.

- Hazard symbols:



Toxic
Highly flammable

- Hazard-determining components of labelling:

methanol

- Risk phrases:

Highly flammable.

Toxic by inhalation, in contact with skin and if swallowed.

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

- Safety phrases:

Keep locked up and out of the reach of children.

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Wear suitable protective clothing, gloves and eyeface protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing MSDS: product safety department

- Contact:

SPEX CertiPrep Inc.

732-549-7144

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

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ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA

1 Identification of substance

Product details
Trade name: METHANOL
Article number: XS-2380-30ML
Application of the substance / the preparation
Manufacturer/Supplier:
 SPEX CertiPrep, Inc - 203 Norcross Ave, Metuchen, NJ 08840

Information department: product safety department
Emergency information:
 Emergency Phone Number (24 hours)
 CHEMTREC (800-424-9300)
 Outside US: 703-527-3887

2 Composition/Data on components

Chemical characterization:
CAS No. Description
 67-56-1 methanol
Identification number(s)
EINECS Number: 200-659-6
Index number: 603-001-00-X

3 Hazards identification

Hazard description: Not applicable.
Information pertaining to particular dangers for man and environment: Not applicable.
Classification system:
NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



GHS label elements



2.6/2 - Highly flammable liquid and vapour.



3.8/1 - Causes damage to organs.

Prevention:
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Do not breathe dust/fume/gas/mist/vapours/spray.

Response:
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Storage:
 Store locked up.
Disposal:
 Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

General information: No special measures required.

(Contd. on page 2)
USA

Trade name: METHANOL

(Contd. of page 1)

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Protective equipment: No special measures required.

6 Accidental release measures

Person-related safety precautions: Not required.
Measures for environmental protection: Dilute with plenty of water.
Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Additional information: No dangerous substances are released.

7 Handling and storage

Handling:
Information for safe handling:
 No special measures required.
 Follow good laboratory practices.
Information about protection against explosions and fires: No special measures required.
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:

67-56-1 methanol	
PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm
	Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm
	Skin: BEI

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:
General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.

Protection of hands:
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

General Information

Form: Fluid
Color: Colorless

(Contd. on page 3)
USA

Trade name: METHANOL

(Contd. of page 2)

Odor:	Alcohol-like
Change in condition	
Melting point/Melting range:	-98°C (-144°F)
Boiling point/Boiling range:	100°C (212°F)
Flash point:	11°C (52°F)
Ignition temperature:	455°C (851°F)
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	5.5 Vol %
Upper:	44 Vol %
Vapor pressure at 20°C (68°F):	128 hPa (96 mm Hg)
Density at 20°C (68°F):	0.79 g/cm ³
Solubility in / Miscibility with	
Water:	Fully miscible.
Organic solvents:	99.9 %
VOC content:	99.9 %
	999.0 g/l / 8.34 lb/gal
Solids content:	0.1 %

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions: No dangerous reactions known.
- Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:
- LD/LC50 values that are relevant for classification:
- 67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
- When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- The substance is not subject to classification.

12 Ecological information

- General notes: Generally not hazardous for water

13 Disposal considerations

- Product:
- Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

USA
(Contd. on page 4)

Trade name: METHANOL

(Contd. of page 3)

14 Transport information

DOT regulations:



- Hazard class: 3
- Identification number: UN1230
- Packing group: II
- Proper shipping name (technical name): METHANOL
- Label: 3+6.1

Land transport ADR/RID (cross-border):



- ADR/RID class: 3 Flammable liquids
- Danger code (Kemler): 336
- UN-Number: 1230
- Packaging group: II
- Label: 3+6.1
- Description of goods: 1230 METHANOL

Maritime transport IMDG:



- IMDG Class: 3
- UN Number: 1230
- Label: 3+6.1
- Packaging group: II
- EMS Number: F-E, S-D
- Marine pollutant: No
- Proper shipping name: METHANOL

Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 3
- UN/ID Number: 1230
- Label: 3+6.1
- Packaging group: II
- Proper shipping name: METHANOL
- UN "Model Regulation": UN1230, METHANOL, 3 (6.1), II

15 Regulations

- Sara
- Section 355 (extremely hazardous substances):
Substance is not listed.
- Section 313 (Specific toxic chemical listings):
Substance is listed.
- TSCA (Toxic Substances Control Act):
Substance is listed.
- Proposition 65
- Chemicals known to cause cancer:
Substance is not listed.

USA
(Contd. on page 5)

Material Safety Data Sheet
acc. to ISO/DIS 11014

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Printing date 08/06/2010

Reviewed on 07/12/2010

Trade name: METHANOL

(Contd. of page 4)

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

Product related hazard informations:

Observe the general safety regulations when handling chemicals.

The substance is not subject to classification according to the sources of literature known to us.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: product safety department

Contact:

SPEX CertiPrep Inc.

732-549-7144

Abbreviations and acronyms:

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RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

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ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA