

# Safety Data Sheet acc. to OSHA HCS

Printing date 03/01/2019

Reviewed on 03/01/2019

## 1 Identification

- **Product identifier**
- **Product Name:** Chloropicrin
- **Part Number:** S-911
- **Application of the substance / the mixture** Certified Reference Material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SPEX CertiPrep, LLC.  
203 Norcross Ave, Metuchen,  
NJ 08840 USA
- **Information department:** product safety department
- **Emergency telephone number:**  
Emergency Phone Number (24 hours)  
CHEMTREC (800-424-9300)  
Outside US: 703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

STOT SE 1 H370 Causes damage to organs.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS06



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
methanol  
trichloronitromethane
- **Hazard statements**  
H225 Highly flammable liquid and vapor.  
H331 Toxic if inhaled.  
H370 Causes damage to organs.
- **Precautionary statements**  
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/vapors/spray.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

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**Product Name: Chloropicrin**

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**· HMIS-ratings (scale 0 - 4)****HEALTH** **1**

Health = \*1

**FIRE** **3**

Fire = 3

**REACTIVITY** **0**

Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

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

**· Dangerous components:**

67-56-1	methanol	99.9%
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**· Chemical identification of the substance/preparation**

76-06-2	trichloronitromethane	0.1%
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**4 First-aid measures**

- **Description of 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 give anything to eat or drink - Do not induce vomiting
- **Information for Doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## · Protective Action Criteria for Chemicals

### · PAC-1:

67-56-1	methanol	530 ppm
76-06-2	trichloronitromethane	0.050 ppm

### · PAC-2:

67-56-1	methanol	2,100 ppm
76-06-2	trichloronitromethane	0.15 ppm

### · PAC-3:

67-56-1	methanol	7200* ppm
76-06-2	trichloronitromethane	1.4 ppm

## 7 Handling and storage

### · Handling:

#### · Precautions 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.

#### · Conditions for safe storage, including any incompatibilities

#### · 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.

#### · Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

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

#### · Control parameters

#### · Components with limit values that require monitoring at the workplace:

##### 67-56-1 methanol

PEL Long-term value: 260 mg/m<sup>3</sup>, 200 ppm

REL Short-term value: 325 mg/m<sup>3</sup>, 250 ppm  
Long-term value: 260 mg/m<sup>3</sup>, 200 ppm  
Skin

TLV Short-term value: 328 mg/m<sup>3</sup>, 250 ppm  
Long-term value: 262 mg/m<sup>3</sup>, 200 ppm  
Skin; BEI

#### · Ingredients with biological limit values:

##### 67-56-1 methanol

BEI 15 mg/L  
Medium: urine  
Time: end of shift  
Parameter: Methanol (background, nonspecific)

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

#### · Exposure controls

#### · 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.

#### · Respiratory protection:

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.

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**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

**Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic
<b>Odour Threshold:</b>	Not applicable.

**pH-value:** Not applicable.

**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	64.7 °C (148.5 °F)

**Flash point:** < 23 °C (<73.4 °F)

**Flammability (solid, gaseous):** Not applicable.

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

**Decomposition temperature:** Not applicable.

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

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

**Explosion limits:**

<b>Lower:</b>	5.5 Vol %
<b>Upper:</b>	44 Vol %

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

**Density at 20 °C (68 °F)** 0.79087 g/cm<sup>3</sup> (6.59981 lbs/gal)

**Relative density** Not applicable.

**Vapor density** Not applicable.

**Evaporation rate** Not applicable.

**Solubility in / Miscibility with**

**Water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not applicable.

**Viscosity:**

<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.

**Solvent content:**

<b>Organic solvents:</b>	99.9 %
<b>VOC content:</b>	99.90 %

**Solids content:** 0.0 %

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· **Other information** No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

#### 67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)

- **Primary 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 categories**

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional 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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **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.

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· Recommended cleansing agent: Water, if necessary with cleansing agents.

### 14 Transport information

· UN-Number  
· DOT, ADR, IMDG, IATA

UN1230

· UN proper shipping name  
· DOT  
· ADR  
· IMDG, IATA

Methanol  
1230 METHANOL  
METHANOL

· Transport hazard class(es)  
· DOT



· Class  
· Label

3 Flammable liquids  
3, 6.1

· ADR



· Class  
· Label

3 Flammable liquids  
3+6.1

· IMDG



· Class  
· Label

3 Flammable liquids  
3/6.1

· IATA



· Class  
· Label

3 Flammable liquids  
3 (6.1)

· Packing group  
· DOT, ADR, IMDG, IATA

II

· Environmental hazards:

Not applicable.

· Special precautions for user  
· Danger code (Kemler):  
· EMS Number:  
· Stowage Category  
· Stowage Code

Warning: Flammable liquids  
336  
F-E,S-D  
B  
SW2 Clear of living quarters.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR  
· Excepted quantities (EQ)

Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

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· <b>IMDG</b>	1L
· <b>Limited quantities (LQ)</b>	Code: E2
· <b>Excepted quantities (EQ)</b>	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1230 METHANOL, 3 (6.1), II

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

### · 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:

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:

67-56-1 methanol

### · Carcinogenic categories

#### · EPA (Environmental Protection Agency)

None of the ingredients is listed.

#### · TLV (Threshold Limit Value established by ACGIH)

76-06-2 trichloronitromethane

A4

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

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

### · Hazard pictograms



GHS02



GHS06



GHS08

- **Signal word** Danger

### · Hazard-determining components of labeling:

methanol

trichloronitromethane

### · Hazard statements

H225 Highly flammable liquid and vapor.

H331 Toxic if inhaled.

H370 Causes damage to organs.

### · Precautionary statements

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/vapors/spray.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Store locked up.

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

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### 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 SDS:** product safety department

· **Contact:**

SPEX CertiPrep, LLC.

1-732-549-7144

· **Date of preparation / last revision** 03/01/2019 / -

· **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)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

US