



## SAFETY DATA SHEET

### DREXEL CHLOROPICRIN WARNING AGENT

#### Section 1: Material Identification

**Product Name:** Drexel Chloropicrin Warning Agent

**CAS NO:** 76-06-2

**Formula:**  $\text{CCl}_3\text{NO}_2$

**Company:** Drexel Chemical Company  
1700 Channel Avenue  
Memphis, TN 38106

**Synonyms:** Trichloronitromethane

**Identifiers:**

|                   |                                                                              |
|-------------------|------------------------------------------------------------------------------|
| <b>EINECS:</b>    | 200-930-9                                                                    |
| <b>RTECS:</b>     | PB6300000                                                                    |
| <b>DOT label:</b> | UN-1580, Chloropicrin, 6.1, PG-I, Poisonous Inhalation Hazard, Hazard Zone B |

**Emergency Telephone Number:**

|                     |                     |
|---------------------|---------------------|
| CHEMTREC            | Drexel Chemical Co. |
| Tel: 1-800-424-9300 | 901-774-4370        |

#### Section 2: Hazard Identification

(As defined by the OSHA Hazard Communication Standard, 29)

**GHS Classification:**

**Health hazards:**

|                                                     |                                |
|-----------------------------------------------------|--------------------------------|
| Acute Toxicity - Oral                               | Category 2                     |
| Acute Toxicity - Dermal                             | Category 2                     |
| Acute Toxicity - Inhalation                         | Category 1                     |
| Skin corrosion/irritation                           | Category (1C) (liquid contact) |
| Eye damage/irritation                               | Category 1, (liquid contact)   |
| Eye damage/irritation                               | Category 2A (vapor contact)    |
| Specific Target Organ Toxicity –<br>Single Exposure | Category 1 (respiratory)       |
| Specific Target Organ Toxicity –<br>Repeat Exposure | Category 1 (respiratory)       |
| Aquatic Toxicity Acute                              | Category 1                     |

**GHS label elements:**

**Signal Word:**

DANGER



**Hazard Statements:**

Fatal if inhaled, swallowed, or in contact with skin.  
Causes severe skin burns and eye damage.  
Causes serious eye irritation (vapor contact).  
Causes damage to the respiratory tract and to lungs from single exposure or through prolonged or repeated exposure by inhalation.  
Very toxic to aquatic life.

**Precautionary Statements:**

**Prevention:**

Do not breathe gas or vapors.  
Do not get in eyes, on skin, or on clothing.  
Wear respirator, eye, hand and skin protection in accordance with the product label. Do not eat, drink, or smoke when using this product.  
Wash hands thoroughly after handling.  
Keep away from heat/sparks/flames/hot surfaces – No Smoking.  
Store away from combustible materials.  
Avoid release to the environment.

**Response:**

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Immediately call a physician or poison control center.  
**IF IN EYES:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eyes. Immediately call a physician or poison control center if liquid contact. For vapor contact, if eye irritation persists, get medical advice or attention.  
**IF ON SKIN:** Take off contaminated clothing immediately. Wash with plenty of water and soap. Immediately call a physician or poison control center.  
**IF SWALLOWED:** Immediately call a physician or poison control center. Rinse mouth. Do NOT induce vomiting. Get medical advice if you feel unwell or if eye irritation persists.  
Wash contaminated clothing before reuse.  
In case of fire, evacuate area. Fight fire remotely due to the risk of cylinder rupture. Use water, dry chemical, or any other conventional media.

**Storage:**

Protect from sunlight, store in well-ventilated place away from other materials, store locked up, keep container or cylinder valve tightly closed. Store at temperatures not exceeding 55°C (131°F).

**Disposal:**

Collect spillage. Dispose contents and container in accordance with government regulations.

### Section 3: Composition Information

| <u>Components</u>  | <u>CAS No.:</u> | <u>% By Wt.:</u> | <u>OSHA PEL:</u> | <u>ACGIH TLV:</u> |
|--------------------|-----------------|------------------|------------------|-------------------|
| Active Ingredient: |                 |                  |                  |                   |
| Chloropicrin       | 76-06-2         | 96.0%            | N/A              | 0.1 ppm           |
| Inert Ingredients: | N/A             | 4.0%             | N/A              | N/A               |

### Section 4: First-Aid Measures

**Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes minimum. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes for at least 25 minutes. Obtain medical attention without delay, preferably from an ophthalmologist

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water then have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have product label with you when calling a poison control center or doctor.

**Skin Contact:** Immediately flush skin with plenty of water for 15 minutes while removing contaminated clothing and shoes. Call a physician or Poison Control Center immediately. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands.

**If Inhaled:** Move person to fresh air and keep at rest in a position comfortable for breathing. If person is not breathing, call 911 or an ambulance, then give artificial respiration. Use a pocket mask equipped with a one-way valve or other proper respiratory device. Do not use mouth-to-mouth method if victim inhaled chloropicrin. Symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure. If breathing is difficult, oxygen should be administered by qualified personnel. Call a poison control center or doctor for further treatment advice.

**Note to Physician:** Methemoglobinemia may aggravate any pre-existing condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. If burn is present, treat as any thermal burn, after decontamination. May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal and/or esophageal control. No specific antidote. Supportive care. Treatment based on judgment of physician in response to reactions of patient. Persons receiving a significant exposure to this material by inhalation should be observed 24-48 hours for delayed pulmonary edema.

### Section 5: Fire Fighting Measures

**Fire Hazards:** Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Thermal decomposition during a fire can produce toxic fumes and irritating gases.

**Flammability classification (OSHA 29 CFR 1910.1200):** Non-combustible

**Flash point:** Non-combustible

**Lower flammable limit (% by volume):** N/A

**Upper flammable limit (% by volume):** N/A

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Cool containers with

flooding quantities of water until well after the fire is out. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

**Firefighting media:** Use foam, dry chemical, carbon dioxide, or water fog when fighting fires involving this product. Do not use water jet, as this may spread burning material. Minimize the use of water to avoid environmental contamination. Contain all runoff.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

**Hazardous Combustion Products:** Carbon oxides, phosgene, nitrogen oxides, chlorinated compounds, irritating fumes and smoke.

**NFPA:**    **Health:**    **Flammability:**    **Reactivity:**

4

0

3

(Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Insignificant)

## Section 6: Accidental Release Measures

### Steps to be taken if Material is Released or Spilled:

- Contain spilled material if possible. Small spills: Apply suitable absorbent then sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Drexel Chemical Co. for clean-up assistance. See **Section 13: Disposal Considerations**, for additional information.

### Personal Precautions:

- Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to **Section 7: Handling**, for additional precautionary measures. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to **Section 8, Exposure Controls and Personal Protection**.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See **Section 12: Ecological Information**.

## Section 7: Handling and Storage

### KEEP OUT OF REACH OF CHILDREN

**Handling:**    **General Handling:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not swallow. Avoid breathing vapor. Use with adequate ventilation. Wear chemical protective equipment when handling. Wear protective eyewear or face shield. DO NOT wear goggles. Keep away from heat, sparks and flame. See **Section 8: Exposure Controls and Personal Protection**.

**Storage:**    Store in a cool, dry, ventilated and secure area away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

## Section 8: Exposure Controls / Personal Protection

**Exposure Limits:** TLV: Chloropicrin 0.1 ppm

### Personal Protection:

**Eye/Face Protection:** Wear safety glasses with side shields to prevent vapors or mists from entering the eyes. If using a full face shield, always use safety glasses along with the face shield to ensure adequate protection of the eyes. Do not wear eye goggles.

**Skin Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

**Hand protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl").

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of mists are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

**Ingestion:** Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

### Engineering Controls:

**Ventilation:** When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with and eyewash facility and safety shower.

## Section 9: Physical and Chemical Properties

|                                             |                               |
|---------------------------------------------|-------------------------------|
| <b>Physical State:</b>                      | Liquid                        |
| <b>Color:</b>                               | Colorless                     |
| <b>Odor:</b>                                | Extremely irritating tear gas |
| <b>Flash Point:</b>                         | Non-combustible               |
| <b>Vapor Pressure (mmHg):</b>               | 18.3 mmHg @ 20°C              |
| <b>Boiling Point:</b>                       | 233°F (112°C)                 |
| <b>Vapor Density (air = 1):</b>             | ~5.7                          |
| <b>Bulk Density (H<sub>2</sub>O = 1):</b>   | 1.66 g/cc                     |
| <b>Freezing Point:</b>                      | -69.2°C (-92.56°F)            |
| <b>Solubility in water (wt % - weight):</b> | 0.2g/100g                     |
| <b>pH:</b>                                  | N/A                           |
| <b>Viscosity:</b>                           | 0.73 centistokes @ 20°C       |
| <b>% Volatiles:</b>                         | 100                           |

## Section 10: Stability and Reactivity

**Stability/Instability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Keep this product away from heat, sparks, flame and other sources of ignition. Avoid temperatures above 60°C (140°F).

**Incompatible Materials:** Avoid contact with organic amines, reducing agents and sulfuric acid. Incompatible with containers or equipment made of aluminum, magnesium or their alloys.

**Hazardous Polymerization:** Will not occur

**Thermal Decomposition:** Decomposition products can include but are not limited to: toxic gases including oxides of nitrogen, phosgene and carbon monoxide.

## Section 11: Toxicological Information

Data presented for technical Chloropicrin:

### Acute Toxicity:

#### Ingestion:

- Oral LD<sub>50</sub>, (rat): 37.5 mg/kg

#### Dermal:

- Dermal LD<sub>50</sub>, (rabbit): 100 mg/kg

#### Inhalation:

- LC<sub>50</sub>, (rat): 126.6 mg/m<sup>3</sup>

#### Eye Irritation (rabbit):

- Slight irritation resolved within 24 hours

#### Skin Irritation (rabbit):

- Mild

#### Sensitization Skin:

- N/A

### Chronic Toxicity:

- Long-term inhalation studies show respiratory tissue subject to inflammatory damage.

### Carcinogenicity:

- Not likely to be carcinogenic in humans.

**Teratogenicity, mutagenicity, and other reproductive effects:** None known

## Section 12: Ecological Information

### ENVIRONMENTAL FATE:

- Highly toxic to fish, acutely toxic to aquatic organisms.

### Persistence and Degradability:

- Decomposes in the environment. Half-lives in air, water and soil range from five minutes to 20 days depending on conditions.

### Aquatic Toxicity:

- Rainbow Trout: 96 hour, LC<sub>50</sub>: 11 µg/L
- Bluegill: 96 hour, EC<sub>50</sub>: 50 µg/L
- Daphnia magna: 48 hour, EC<sub>50</sub>: 120 µg/L

### Bees:

- Dermal, 48 hour, LD<sub>50</sub>: >100 µg/L

## Section 13: Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

## Section 14: Transport Information

**DOT:** UN-1580, Chloropicrin, 6.1, PG-I, Poisonous Inhalation Hazard, Hazard Zone B

**IATA:** UN-1580, Chloropicrin, 6.1, PG-I, Poisonous Inhalation Hazard, Hazard Zone B

**IMDG:** UN-1580, Chloropicrin, 6.1, PG-I, Poison Inhalation Hazard, Zone B, Marine Pollutant

**Freight Description:** Chloropicrin, warning agent, n.o.s.

**ERG Guide No.:** 154

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## Section 15: Regulatory Information

### OSHA Hazard Communication Standard:

- This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- **CERCLA Reportable Quantity:** None Known

### SARA/TITLE III:

- **Sec. 302. Extremely Hazardous Substance Notification:** This material is not known to contain any Extremely Hazardous Substances.
- **Sec. 311/312. Hazard Categories:** Immediate health hazard
- **Sec. 313. Toxic Chemical(s):** Chloropicrin (CAS 76-06-2)
- **RCRA Waste Code:** Not applicable

### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

- This product is not listed.

### Toxic Substances Control Act (TSCA):

- All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

## Section 16: Other Information

*Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.*

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