

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Identifiers: Chloropicrin
Product Name: Chloropicrin, ASHTA Gold

Identified Uses: Restricted Use Pesticide (RUP)

Company Information:
ASHTA Chemicals Inc.
P.O. Box 858
Ashtabula Ohio 44005
Phone: (440) 997-5221
Fax: (440) 998-0286
24-hour Emergency Phone: CHEMTREC: (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

GHS label elements, including precautionary statements:

Signal Word: Danger

Pictogram(s):

**Hazard Statements**

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| H301 | Toxic if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May Cause an allergic reaction. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Precautionary Statements

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| P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |

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| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/eye protection/face protection. |
| P284 | Wear respiratory protection. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P320 | Specific treatment is urgent (see supplemental first aid instructions on this label). |
| P330 | Rinse mouth. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P391 | Collect spillage. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to an approved waste disposal plant. |

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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| Synonyms: | |
| CHEMICAL NAME: | Chloropicrin, Nitrotrichloromethane |
| TRADE NAME: | Chloropicrin, ASHTA Gold |
| SYNONYMS: | Trichloronitromethane, Nitrochloroform |
| CONCENTRATION: | >99.5% |
| | |
| C.A.S: | 76-06-2 |
| WHMIS: | DIA, D2B |
| | |
| CHEMICAL FORMULA: | CCl ₃ NO ₂ or Cl ₃ CNO ₂ |
| CHEMICAL FAMILY: | Chlorinated Nitrified Hydrocarbon |

SECTION 4 FIRST AID MEASURES

Description of first aid measures:
 Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled:
 If breathed in, move person into fresh air. If not breathing, give artificial respiration using humidified air. Oxygen can be administered by a certified physician only. Get medical attention immediately.

In case of skin contact:
 Wash off with soap and plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Consult a physician. Get medical attention immediately.

In case of eye contact:
 Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention immediately.

If swallowed:

Do not induce vomiting. If victim is conscious and alert, give plenty of milk or water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Most important symptoms, effects, acute, and delayed:

May cause lung, liver and kidney damage. May cause allergic respiratory and skin reaction and could be fatal if inhaled. Causes eye, skin and respiratory tract irritation.

Indication of immediate medical attention and special treatment needed:

Chloropicrin can cause irritation of the mucous membrane and upper respiratory tract. Inhalation may cause anemia, weak and irregular heart, recurrent asthmatic attacks, bronchitis, pulmonary edema, and possible death. Gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion may cause colic and death. Treat appropriately. Insure medical personal are aware of the materials involved.

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| SECTION 5 | FIRE FIGHTING MEASURES |
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| Flash Point: | None |
| Extinguishing Media: | Use water spray to cool fire-exposed containers. Use extinguishing media most appropriate for the surrounding fire. Use water spray, dry chemical, carbon dioxide, or chemical foam. |
| Auto Ignition Temp: | Non-combustible. |
| Special Fire Fighting Procedures: | As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. |
| Unusual Fire/Explosion Hazards: | Contact with combustible materials may cause fire and explosion. Closed containers may rupture violently when heated. |

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| SECTION 6 | ACCIDENTAL RELEASE MEASURES |
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Environmental Precautions:

Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/ aquatic environment.

Containment and Cleaning:

Evacuate the danger area. Follow preplanned emergency procedures. Clean-up crew must use self-contained breathing apparatus. Only properly equipped, trained, functional personnel should attempt to contain a leak. Collect leaking liquid in a sealable container. Do not let product enter drains. If this is not possible, absorb in sand, vermiculite or inert absorbent material. Do not use sawdust or other flammable materials for absorbing a spill. Spilled chloropicrin will vaporize into the atmosphere. Large spills may require transporting clean-up waste to a licensed disposal site. Consult the supplier for assistance.

SECTION 7: HANDLING AND STORAGE

Precautions to be taken for handling and storage:

Do not allow combustibles in the storage area. Avoid the use of rubber compounds, PVC and PVDC materials to store or transfer chloropicrin. All storages should be properly vented to prevent toxic fumes from entering the atmosphere. Dry chloropicrin can be handled in mild steel containers, vessels and piping.

Precautions for repair:

Equipment: Only personnel trained and qualified in handling this product should prepare equipment for maintenance.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Principal Component: Chloropicrin

Occupational Exposures Limits:

| OSHA PEL | ACGIH TLV | STEL | NIOSH IDLH |
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| 0.1 ppm | 0.1 ppm (0.067 mg/m ³) TWA | 0.3 ppm (2.1mg/m ³) 15min | 2 ppm (2010) |

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Exposure Controls:

Eye Protection:

Chemical goggles.

Respiratory Protection:

Approved self-contained breathing apparatus with full face piece must be used.

Other Protection:

Protective clothing must be worn. Safety eye wash and shower station should be available in the handling area.

Ventilation Recommended:

Exhaust ventilation is required to meet PEL limits.

Engineering Controls:

Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Glove Type Recommended:

Polyethylene lined. Do not use rubber.

Additional Information:

Impervious clothing other than rubber.

Hazardous Mixtures of Other Liquids, Solids or Gases:

The substance decomposes in flame or on a hot surface, forming toxic and corrosive gases. It is a strong oxidant and reacts violently with combustible and reducing materials. Above a critical volume it can be shock detonated.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

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| Appearance | Clear to light green/brown liquid, slightly oily |
| Odor | Intensely irritating odor (tear gas odor) |



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| Odor Threshold | No data available |
| pH | Non-aqueous |
| Melting point/freezing point | -61°C |
| Initial boiling point | 112°C (234°F) |
| Flash point | no data available |
| Auto-ignition Temp | no data available |
| Evaporation rate | no data available |
| Flammability (solid, gas) | no data available |
| Upper/lower flammability or explosive limits | no data available |
| Relative density | 1.657 g/cm ³ at 25°C (77°F) |
| Water solubility | 1.6 g/L @ 25°C |
| Molecular Weight | 164.38 |
| Density | 14.1 lbs/gallon |
| Vapor Density | 5.7 |
| Vapor Pressure | 23.9 mm Hg (25°C) |

SECTION 10: STABILITY AND REACTIVITY

- Stability: Chloropicrin is stable under normal conditions and pressures.
- Conditions to avoid: Incompatible materials, excessive heat.
- Incompatibility: Amines, aniline, sodium methoxide, particularly at elevated temperatures. Do not use with PVC, aluminum, magnesium or their alloys. Mixing with water may cause formation of corrosive products over time. Contact with oxidizing and reducing agents, strong acids or bases may cause fires or explosions.
- Hazardous decomposition products: Hydrogen chloride, phosgene, carbon monoxide, oxides of nitrogen, irritating and toxic fumes and gases, carbon dioxide.
- Polymerization: Hazardous polymerization WILL NOT occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

- Ingestion: May cause severe burns of the mouth and throat. Ingestion may cause gastrointestinal irritation or ulceration. In animals, effects have been reported on the following organ: liver.
- Inhalation: Pungent, sore throat, coughing, labored breathing, dizziness, nausea, vomiting, bluish skin, faintness. Serious cases may be fatal.
- Skin contact: Corrosive, causes redness and chemical burns.
- Eye contact: Powerful lachrymator, commonly referred to as tear gas.
- Additional Information: Liquid chloropicrin has a corrosive action on the skin. Scratches or abrasions exposed to chloropicrin fumes invariably become septic.



Information on toxicological effects:

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| Acute toxicity: | Can be fatal if inhaled. |
| IDLH: | 2.0 ppm. |
| Respiratory sensitization: | No data available. |
| Skin sensitization: | No data available. |
| Germ cell mutagenicity: | Has been shown to have mutagenic activity in bacteria. Animal mutagenicity studies were inconclusive. |
| Carcinogenicity: | Chloropicrin - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. |
| Reproductive toxicity: | No data available. |
| Specific target organ toxicity - Repeated exposure: | Causes damage to respiratory, central nervous system through prolonged or repeated exposure May cause damage to hematopoietic system through prolonged or repeated exposure. |
| Aspiration hazard: | No data available. |
| Chronic effects: | Chronic inhalation may cause effects similar to those of acute inhalation. Laboratory experiments have resulted in mutagenic effects. |
| Further information: | Persons with pre-existing skin disorders or impaired respiratory or pulmonary function may be at increased risk to the effects of this substance. Treat symptomatically and supportively. |
| Fish Toxicity: | Fish, Rainbow Trout: LC ₅₀ : 0.0165 mg/l/96 Hr Fish, Bluegill/Sunfish: LC ₅₀ : 0.105 mg/l/96 Hr |

SECTION 12: ECOLOGICAL INFORMATION

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| Ecological Hazards: | This material is toxic to mammals, birds, and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or EPA Regional Office. |
| Biodegradation: | The half-life of chloropicrin in sandy loam soil was 8-24 hours and 4.5 days with carbon dioxide being the terminal breakdown product. Chloropicrin moves rapidly in soils within twelve inches of injection but may diffuse to a maximum depth of four feet in sandy soil. Since it is only slightly soluble in water, it will not move rapidly in aquatic environments. In an anaerobic aquatic/soil system, chloropicrin was converted to nitromethane with a half-life of 1.3 hours. In the absence of sunlight or microorganisms, chloropicrin does not undergo hydrolysis |
| Bioaccumulation Potential: | The octanol/water partition coefficient (Log ₁₀ K _{ow}) is 2.50 at 25°C indicating that chloropicrin would not be expected to bioaccumulate in mammalian cells. |



SECTION 13: DISPOSAL CONSIDERATIONS

Wastes containing this material are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If pesticide cannot be used according to label instructions, disposal of this material must be in accordance with your local or area regulatory authorities. Contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

SECTION 14: TRANSPORT INFORMATION

Shipping:
Usual Shipping Containers: Tank cars, ton containers, cylinders.
Usual Shelf Life: Indefinite (life of containers).
Storage/Transport Temperatures: Ambient.

Suitable Storage:
Materials/Coatings: Mild steel (if dry), Teflon-lined equipment.
Unsuitable: Rubber, PVC and PVDC materials.

D.O.T. Information:
Labeling: Poison
UN Identification Number: UN 1580
Proper Shipping Name: Chloropicrin-liquid
Hazard Class: 6.1
Packing Group: I
Hazard Guide: 154
Placard: UN 1580
IATA Passenger: Not permitted for transportation
IATA Cargo: Not permitted for transportation
Reportable Quantity: N/A

SECTION 15 REGULATORY INFORMATION

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:
Chloropicrin CAS#: 76-06-2 (List of Lists, Oct. 2012)

SARA 311/312 Hazards
Acute and Delayed Health Hazard

Massachusetts Right To Know Components
Chloropicrin CAS#: 76-06-2



Pennsylvania Right To Know Components
Chloropicrin CAS#: 76-06-2

New Jersey Right To Know Components
Chloropicrin CAS#: 76-06-2

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

OSHA PSM TPQ: 500lbs

Toxic Substances Control Act (TSCA):
CAS# 76-06-2 is listed on the TSCA inventory.

Comprehensive Environmental Response Compensation Liability Act: (CERCLA)
To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.
EPA Registration Number: 62531-1 Chloropicrin
62531-2 ASHTA Gold

This product is regulated under the U.S. Department of Homeland Security (DHS)
Chemical Facility Anti-Terrorism Standards (CFATS) (6 CFR 27)

SECTION 16 OTHER INFORMATION

NFPA Rating:
Health hazard: 4
Fire Hazard: 0
Reactivity Hazard: 3

This information is drawn from recognized sources believed to be reliable. ASHTA Chemicals, Inc. Makes no guarantees or assumes any liability in connection with this information. The user should be aware of changing technology, research, regulations, and analytical procedures that may require changes herein. The above data is supplied upon the condition that persons will evaluate this information and then determine its suitability for their use. Only U.S.A regulations apply to the above.

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| For the new GHS SDS Standard | Revision Date: 12/15/2014 |
| Graphics updated | Revision Date: 3/9/2015 |
| Added Trade Name & EPA Reg # | Revision Date: 2/22/2017 |
| Removed Version & Added DHS Info. in Section 15 | Revision Date: 5/16/2018 |