

# Safety Data Sheet

## CHLORAL HYDRATE

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Chloral Hydrate

**Catalog Numbers:** SO-1075

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H301-Acute toxicity, oral: 3

H313-Acute toxicity, dermal: 5

H315-Skin corrosion/irritation: 2

H319-Serious eye damage/eye irritation: 2A

H350-Carcinogenicity: 1B

H373-Specific target organ toxicity, repeated exposure: 2

Consists of ingredient of unknown acute inhalation toxicity.

#### Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

## Hazard Statements:

H301-Toxic if swallowed  
H313-May be harmful in contact with skin  
H315-Causes skin irritation  
H319-Causes serious eye irritation  
H350-May cause cancer  
H373-May cause damage to organs through prolonged or repeated exposure (target organs: lungs, adrenal gland, and kidney.)

## Precautionary Statements:

P201-Obtain special instructions before use.  
P202-Do not handle until all safety precautions have been read and understood.  
P260-Do not breathe dust/fume/gas/mist/vapours/spray.  
P264-Wash thoroughly after handling.  
P270-Do not eat, drink, or smoke when using this product.  
P280-Wear protective gloves, protective clothing, eye protection/face protection.  
P281-Use personal protective equipment as required.  
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.  
P308+P313-If exposed or concerned: Get medical advice/attention.  
P312-Call a Poison Center or doctor/physician if you feel unwell.  
P314-Get medical advice/attention if you feel unwell.  
P332+P313-If skin irritation occurs: Get medical advice/attention.  
P330-Rinse mouth.  
P337+P313-If eye irritation persists: Get medical advice/attention.  
P362-Take off contaminated clothing and wash before reuse.  
P405-Store locked up.  
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS #	Chemical Name	Percent
302-17-0	Chloral Hydrate	≥99

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Immediate medical attention is required.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

**Oral Exposure:** If swallowed, seek immediate medical advice. Do NOT induce vomiting. Rinse mouth with water. After rinsing, drink water.

**Inhalation Exposure:** If inhaled, remove to fresh air. Seek medical attention.

#### Section 5 - Fire Fighting Measures

**General Information:** 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 gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Carbon oxides, hydrogen chloride gas, phosgene gas, irritating and toxic fumes and gases.

**Flash Point:** Not applicable

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

#### Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation. Avoid generating dusty conditions. Avoid substance contact.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Damp down dust with water spray to avoid generating dusty conditions. Keep contaminated water and dispose of appropriately. Do not release to the environment. Do not release to drains.

#### Section 7 - Handling and Storage

Use care when handling. Use personal protective equipment. Use only under a chemical fume hood. Wash thoroughly after handling. Avoid contact with skin, eyes, and clothing. Do not ingest. Do not breathe dust/vapors/mists. Air and light sensitive. Store in a tightly closed container in a cool, dry, and well-ventilated area. Keep locked up or in an area accessible only to qualified or authorized persons. Keep away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

**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 adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

### Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Chloral Hydrate CAS#302-17-0	Not listed	Not listed	Not listed

## Section 9 - Physical and Chemical Properties

**Physical State:** Crystalline

**Appearance:** Colorless

**Odor:** Characteristic

**Vapor Pressure:** 9.8 mm Hg at 20°C

**Odor Threshold:** Not available

**Vapor Density:** Not applicable

**pH:** 3.5-5.5

**Relative Density:** Not available

**Melting point/freezing point:** 52°C

**Solubility:** Soluble in water

**Boiling Point:** 97°C

**Flash Point:** Not applicable

**Evaporation Rate:** Not applicable

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

**Partition coefficient: n-octanol/water:** Not available

**Auto-ignition Temperature:** Not available

**Decomposition Temperature:** >97°C

**Viscosity:** Not applicable

**Specific Gravity/Density:** Not available

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under ordinary conditions of use and storage. Light and air sensitive.

**Conditions to Avoid:** Incompatible materials, excess heat, freezing, air and light.

**Incompatibilities with Other Materials:** Strong oxidizing agents, bases, strong alkali, alkaline metals, alkaline earth metals, alcohols, iron/iron-containing compounds, soluble barbiturates, borax, tannins, iodides, permanganates, and various plastics.

**Hazardous Decomposition Products:** Carbon oxides, hydrogen chloride gas, phosgene gas, irritating and toxic fumes and gases.

## Section 11 - Toxicological Information

**CAS#302-17-0 Chloral hydrate: RTECS#: FM8750000**

LD50, Oral: 479 mg/kg (rat)

LD50, Oral Estimate: 100.1 mg/kg (expert judgement)

LD50, Dermal: 3,030 mg/kg (rat)

LC50, Inhalation: Not available

**Carcinogenicity:** Chloral hydrate CAS# 302-17-0 is not listed by NTP, ACGIH, or OSHA. Chloral Hydrate is listed by IARC (Group 2A, Probably Carcinogenic to Humans) and California Prop. 65 as a carcinogen.

**Epidemiology:** Not available.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.

**Developmental Effects:** Not available.

**Neurotoxicity:** Not available.

**Mutagenicity:** Not available.

**Specific Target Organ Toxicity, Single Exposure:** Not available.

**Specific Target Organ Toxicity, Repeated Exposure:** Lungs, adrenal gland, and kidney.

**Note:** May cause respiratory tract irritation.

**The toxicological properties of this material have not been thoroughly investigated.**

## Section 12 - Ecological Information

**Ecotoxicity:** Do not release to the environment. Do not release to drains. Do not allow to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

**CAS#302-17-0 Chloral Hydrate:**

LC50, freshwater fish: 1,200 mg/L 48h (leuciscus idus)(melanotus)

LC50, freshwater fish: 1,720 mg/L 48h (leuciscus idus)(golden orfe)

EC50, water flea: 500 mg/L 48h (daphnia magna)  
IC50, algae: 2.8 mg/L 168h (scenedesmus quadricauda)(green algae)

**Persistence and Degradability:** Not easily biodegradable.

**Bio-accumulative potential:** Not available.

**Mobility:** Will likely be mobile in the environment due to its water solubility.

### Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

### Section 14 – Transport Information

**DOT**

TOXIC SOLID, ORGANIC, N.O.S. (Chloral Hydrate)

UN 2811

PG III

Hazard Class 6.1

### Section 15 - Regulatory Information

#### Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

### Section 16 - Additional Information

**SDS Creation Date:** 8-17-22

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