

SAFETY DATA SHEET

SECTION 1 - COMPANY AND PRODUCT IDENTIFICATION

PRODUCT

Product Name: TETRAHYDROFURAN
Control Number: 00238
Product Description: Heterocyclic Compound

COMPANY IDENTIFICATION

Supplier: Chemical Distribution Solutions
1125 Oak St. Ste. 303
Conway, AR 72032

24 Hour Emergency Telephone: (800) 424-9300 CHEMTREC
General Information: (501) 978-1111

SECTION 2- HAZARDS IDENTIFICATION

GHS Classification:

[Health]
Eye irritation Category 2A

[Environmental]

[Physical]
Carcinogenicity Category 2

GHS Label elements, including precautionary statements

Pictograms



Signal Word: Warning

Hazard statement(s)

H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.

Precautionary statement(s)

P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTSCHEMICAL

CHEMICAL NAME	CAS Number	%WT
Tetrahydrofuran	109-99-9	70-90

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SECTION 4 - FIRST AID MEASURES

Eyes: Flush with running water for several minutes. Seek medical attention if irritation persists.
Skin: Wash exposed skin with soap and water. Seek medical attention if irritation persists.
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention.
Ingestion: DO NOT induce vomiting. Rinse mouth with water. Seek medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing Media: To extinguish flames use dry chemical, carbon dioxide or fire fighting foam. .
Fire Fighting Procedures: Wear self-contained breathing apparatus (SCBA) operated in pressure demand mode and full bunker firefighter's protective clothing.
Fire and Explosion Hazards: Containers can rupture and explode under fire conditions due to pressure and vapor buildup. Heated vapors may form explosive mixture with air. Vapors may travel across the ground and reach an ignition source.

SECTION 6 - ACCIDENTAL RELEASE and DISPOSAL MEASURES

Ventilate the area and stop source of spill. Remove all sources of ignition. Use a spark-proof tool. Do not expose spill to water. Salvage and recycle as much material as possible.

Small spills: use absorbent material such as (e.g. vermiculite, sand or earth). Put all material into proper waste disposal container with lid tightly covered.

Large spills: contain spill, recover free liquid, collect with an electrically protected vacuum cleaner or by wet-brushing, and use absorbent material to dry area. Put all material into appropriate waste containers.

SECTION 7 - STORAGE AND HANDLING

Handling: Use only under a chemical fume hood. Use explosion-proof equipment. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. If peroxide formation is suspected, do not open or move container.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area. Containers should be dated when opened and tested periodically for the presence of peroxides. Should crystals form in product liquid, peroxidation may have occurred and the product should be considered extremely dangerous. In this instance, the container should only be opened remotely by professionals.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Use explosion-proof ventilation equipment. Provide ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. The level of protection and types of controls will vary depending upon potential exposure conditions.

Exposure Limits: Tetrahydrofuran 100 ppm ACGIH 200 ppm OSHA

Personal Protective Equipment (PPE):

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

Skin: If prolonged or repeated skin contact is likely, wear appropriate protective gloves.

Clothing: Selection of protective clothing depends on work conditions.

Respirators: Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined areas, use a self-contained breathing apparatus.

Other Equipment: Adequate explosion proof ventilation to control airborne concentrations below the exposure limits. Eye wash station and drenching shower in close proximity to use are advised.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: 5.8 °F	Flammability Limits: Lower 2 Upper 12
Autoignition Temperature: 609 °F	Specific Gravity: 0.88
Boiling Point: 149-153 °F	Volatile %: No available data
Melting/Freezing Point: -162 °F	Evaporation Rate (BuAc=1): >1
Vapor Pressure: 143 mmHg	pH: 7-8 (20% aqueous solution)
Vapor Density (Air-1): 2.5	Solubility in Water: Reacts
Odor/Appearance: Colorless liquid with petroleum-like odor.	

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal use and temperature conditions.
Conditions to Avoid: No available information.
Materials to Avoid: Oxidizing agents, Acid chlorides, Acid anhydrides, Reducing agents, Oxygen, Chloroformates
Decomposition Products: When combusted, oxides of carbon and various hydrocarbons.

SECTION 11 - TOXICOLOGICAL INFORMATION

Signs and Symptoms of Overexposure:

Eye: Contact with eyes may cause severe irritation, and possible eye burns. Vapors may cause eye irritation. Damage may be permanent.

Skin: Causes skin irritation. May be absorbed through the skin. If absorbed, causes symptoms similar to those of inhalation. THF is not a skin sensitizer in animals.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Vapors may cause dizziness or suffocation.

Acute oral toxicity:

LD50 rat: 3300 mg/kg

Acute inhalation toxicity:

LC50 rat: 40250 ppm

Acute dermal toxicity:

LD50: rabbit: >5 gm/kg

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: No available published data.

Bio-accumulative potential: No available published data.

Mobility: No available published data.

SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

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SECTION 14 · TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):

Proper Shipping Name: Tetrahydrofuran, solution
Hazard Class: 3
UN Number: 2056
Packaging Group: 2

SECTION 15 · REGULATORY INFORMATION

US FEDERAL REGULATIONS

Comprehensive Environmental Response and Liability Act (CERCLA)

This material is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. The reportable quantity (RQ) for this material is 1235 pounds. If appropriate, immediately report to the National Response Center (800/424-8802) as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies.

Toxic Substance Control Act (TSCA): All components of this product are listed on the TSCA inventory list.

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Fire Hazard, Acute Health Hazard,

SARA Section 313 (40 CFR 372) Hazard Categories: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act: This product contains Tetrahydrofuran a chemical listed as Hazardous Substances under the CWA

Clean Air Act: This product contains Tetrahydrofuran a chemical listed as Hazardous Substances under the CAA.

California Prop 65: This product contains no chemicals known by the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 · OTHER INFORMATION

MSDS Revision Date: December 2014

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 2
Flammability: 3
Reactivity: 1

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which Chemical Distribution Solutions assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.