# SAFETY DATA SHEET



Date Issued: 12/16/2005

SDS No: 10588

**Date Revised**: 08/06/2021

**Revision No:** 6

# **HEXANE**

# 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME: HEXANE** 

**PRODUCT FORMULATION NAME:** Hexane

ALTERNATE TRADE NAME(S): n-HEXANE, WTHEX, HEXANE ACS

# **MANUFACTURER**

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation): (800) 424 - 9300

Distributed by Tarr, LLC P.O. Box 12570

Portland. OR 97212

**Customer Service:** 503-288-5294

# 2. HAZARDS IDENTIFICATION

# **GHS CLASSIFICATIONS**

#### **Health:**

Aspiration Hazard, Category 1

Reproductive Toxicity, Category 2

Skin Irritation, Category 2

Target Organ Toxicity (Repeated exposure), Category 3

Target Organ Toxicity (Single exposure), Category 2

#### **Environmental:**

Chronic Hazards to the Aquatic Environment, Category 2

# **Physical:**

Flammable Liquids, Category 2

#### **GHS LABEL**









Flame

Health

**Exclamation Environment** 

hazard mark

SIGNAL WORD: DANGER

# HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

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H361: Suspected of damaging fertility or the unborn child (state specific effect if known)(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H373: May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H411: Toxic to aquatic life with long lasting effects.

# PRECAUTIONARY STATEMENTS

# **Prevention:**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P281: Use personal protective equipment as required.

P240: Ground and bond container and receiving equipment.

P242: Use non-sparking tools.

# **Response:**

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P331: Do NOT induce vomiting.

# **Storage:**

P102: Keep out of reach of children.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P403: Store in a well-ventilated place.

# Disposal:

P273: Avoid release to the environment.

#### **EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS:** DANGER! Highly Flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful.

# POTENTIAL HEALTH EFFECTS

**EYES:** Can cause mild eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

**SKIN:** Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

**INGESTION:** Swallowing small amounts of this material during normal handling operations is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

**INHALATION:** Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. symptoms usually occur at air concentrations higher than the recommended exposure limits.

**MEDICAL CONDITIONS AGGRAVATED:** Pre-existing disorders of the following organ(s) or organ system(s) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), central nervous system, nervous system, male reproductive system.

# 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Hexane	100	110-54-3

#### 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**INGESTION:** Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

# SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE EFFECTS: Irritation as noted above. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Target Organ Effects: Prolonged and repeated exposure to n-hexane may cause peripheral neuropathy by damaging peripheral nerve tissue (that of the arms and legs) and result in muscular weakness and loss of sensation. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible kidney effects, nasal damage, nervous system damage, testis damage, lung damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: visual impairment, central nervous system effects.

**NOTES TO PHYSICIAN:** Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in person exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting. See Aggravated Medical Conditions.

# 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use regular foam, dry chemical, or carbon dioxide (CO2).

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

**EXPLOSION HAZARDS:** Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

**FIRE FIGHTING PROCEDURES:** Clear fire area of unprotected personnel. Fire fighters should wear self contained breathing apparatus. Water spray may be ineffective in fighting the fire but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot burning liquid. Wear a self contained breathing apparatus with full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemicals resistant personal protective equipment. Refer to the personal protective equipment section of this SDS.

# 6. ACCIDENTAL RELEASE MEASURES

**GENERAL PROCEDURES:** WARNING. Extremely Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

# 7. HANDLING AND STORAGE

GENERAL PROCEDURES: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, including tank cars and tank trucks, should be grounded and/or bonded when material is transferred. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Keep away from heat, sparks, and flame. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignition without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operation conditions. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

**COMMENTS:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death. Observe all federal, state, and local regulations and National Fire Protection Association (NFPA) Codes with pertain to the specific local conditions of stage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

# **EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)						
	EXPOSURE LIMITS					
Chemical Name	Туре		ppm	mg/m³		
Hexane	OSHA PEL	TWA	500 [1]	1800 [1]		
	ACGIH TLV	TWA	50	180		
	Supplier OEL	TWA	NL	NL		
		STEL	NL	NL		

#### Footnotes:

1. NL = Not Listed

**ENGINEERING CONTROLS:** Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

# PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

**SKIN:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**RESPIRATORY:** If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved

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respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**WORK HYGIENIC PRACTICES:** Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

**OTHER USE PRECAUTIONS:** May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventillation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

**COMMENTS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

**ODOR:** Hydrocarbon.

**COLOR:** Clear, colorless liquid. **PERCENT VOLATILE:** 100

FLASH POINT AND METHOD: (-10°F) TAG CC

LOWER EXPLOSION LIMIT: 0.01 UPPER EXPLOSION LIMIT: 0.075

**AUTOIGNITION TEMPERATURE:** (437°F) **VAPOR PRESSURE:** 59.2 mm Hg at (68°F)

**VAPOR DENSITY:** 3 (Air=1)

**BOILING POINT:**  $(149^{\circ}F)$  to  $(159^{\circ}F)$ 

**FREEZING POINT:** (14.0°F)

MELTING POINT: No Data Available. SOLUBILITY IN WATER: Insoluble

**EVAPORATION RATE:** 9.0 (n-Butyl Acetate=1)

**DENSITY: 5.72** 

SPECIFIC GRAVITY: 0.675 to 0.686

**MOLECULAR WEIGHT:** 86.0 **(VOC):** 5.63 to 5.72 LBS./gal.

#### 10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur.

**STABILITY:** Avoid heat, flame, and other sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion. There should be no decomposition if stored and applied as directed.

**INCOMPATIBLE MATERIALS:** Strong oxidizers.

# 11. TOXICOLOGICAL INFORMATION

#### CARCINOGENICITY

**NOTES:** Based on the available information, this material cannot be classified with regard to carcinogenicity. This

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material is not listed as a carcinogen by IARC, NTP, or OSHA.

**STOT-SINGLE EXPOSURE:** Laboratory studies have shown that petroleum distillates may cause kidney, liver, or lung damage. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

**GENERAL COMMENTS:** Developmental Information: This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

# 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION:** Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

# 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

**EMPTY CONTAINER:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

**RCRA/EPA WASTE INFORMATION:** 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. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

# 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)** 

**PROPER SHIPPING NAME:** Hexanes

**PRIMARY HAZARD CLASS/DIVISION: 3** 

UN/NA NUMBER: UN 1208

PACKING GROUP: II

**NAERG: 128** 

**REPORTABLE QUANTITY (RQ) UNDER CERCLA:** 5,000 lbs.

LABEL: Flammable liquid

# 15. REGULATORY INFORMATION

#### UNITED STATES

# SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HEALTH HAZARDS:** This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

**313 REPORTABLE INGREDIENTS:** n-hexane (CAS 110-54-3)

#### **EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt.%	CAS	Comments
Hexane	100	110-54-3	Contains: Cyclohexane (110-82-7) 10 to 14% n-Hexane (110-54-3) 38 to 42%

# 302/304 EMERGENCY PLANNING

**EMERGENCY PLAN:** To the best of our knowledge, this product is not listed as an extremely hazardous substance.

# CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
Hexane	100	5,000

CERCLA RQ: 5,000 lbs.

# TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Hexane	110-54-3

TSCA STATUS: Listed.

**CALIFORNIA PROPOSITION 65:** The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause cancer.: Benzene.

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the State of California to cause reproductive harm.: Benzene.

# 16. OTHER INFORMATION

PREPARED BY: Compliance Date Revised: 08/06/2021

**REVISION SUMMARY:** This SDS replaces the 08/06/2021 SDS.





**NFPA STORAGE CLASSIFICATION:** These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

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