

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number: 104-76-7
Product Name: 2-Ethyl Hexanol
Revision Date: Feb 04, 2020 **Date Printed:** Feb 05, 2020
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Thames River Chemical Corp.
Address: 5230 Harvester Road Burlington, ON, CA, L7L 4X4
Emergency Phone: CHEMTREC (800) 424-9300
Information Phone Number: 905-681-5353
Fax: 905-681-5377
Product/Recommended Uses: For laboratory or industrial use only.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Acute toxicity Inhalation - Category 4
Eye Irritation - Category 2A
Flammable Liquids - Category 4
Skin Irritation - Category 2
Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3

Pictograms



Signal Word

Warning

Hazard Statements - Health

Harmful if inhaled
Causes serious eye irritation
Causes skin irritation
May cause respiratory irritation

Hazard Statements - Physical

Combustible Liquid

Precautionary Statements - General

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash/Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

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

Keep container tightly closed.

Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor, if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use carbon dioxide, alcohol foam, water spray or dry chemical to extinguish.

IF ON SKIN: Wash with plenty of water and soap.

Specific treatment (see first-aid on the SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

Precautionary Statements - Storage

Store in a well-ventilated place.

Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

Physical Hazards Not Otherwise Classified

No data available.

Health Hazards Not Otherwise Classified

No data available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

| CAS | Chemical Name | % By Weight |
|--------------|-------------------|--------------|
| 0000104-76-7 | 2-ETHYL-1-HEXANOL | 95.5% - 100% |

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality or to reflect batch to batch variation.

SECTION 4) FIRST-AID MEASURES

Inhalation

Get medical advice/attention if you feel unwell or are concerned. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. Remove source of exposure or move person to fresh air and keep comfortable for breathing. Eliminate all ignition sources if safe to do so. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Eye Contact

Immediately rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

Seek medical attention.

Skin Contact

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Store contaminated clothing under water and wash before re-use or discard. Rinse skin with water/shower and mild soap for 5 minutes or until product is removed.

Ingestion

Rinse mouth. If in doubt, seek medical assistance

Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation: Symptoms of exposure to high concentrations of vapors or mists include sore throat, coughing and irritation of the upper respiratory tract, headache, feeling of weakness.

Skin contact: Irritation, discomfort, redness, rash.

Eye contact: Irritation, pain, burning sensation, redness and watering of the eyes.

Ingestion: Swallowing large amounts may cause nausea, vomiting and diarrhea.

No data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Alcohol resistant foam, BC powder, Carbon dioxide, water spray or water fog. Use water spray to cool fire-exposed containers. Consult fire-fighting foam manufacturers for recommendations regarding types of foams and application rates.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards in Case of Fire

Combustible liquid. Flash point 75-77°C (167-170°F). Can form explosive mixtures with air at or above the flashpoint temperature. Heat from a fire can cause a rapid build-up of pressure inside containers, which may lead to explosive rupture. During a fire, smoke may contain toxic and irritating smoke and fumes. Thermal decomposition and combustion products may include toxic carbon monoxide, carbon dioxide and irritating fumes.

Containers may explode in fire.

Fire-fighting Procedures

Evacuate the area and fight fire from a safe distance or a protected location. Approach the fire from upwind to avoid hazardous vapors. Burning liquids may be extinguished by dilution with water. Water spray may be used to flush spills away from ignition sources. Avoid all contact with this material during fire-fighting operations. Wear chemical resistant clothing (chemical splash suit) and positive-pressure self-contained breathing apparatus. Contain water run-off if possible.

Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely. Stop spill/release if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Large Fire: Dike fire-control water for later disposal; do not scatter the material

Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

Recommended Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

Environmental Precautions

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Stop spill/release if it can be done safely. Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material. Ventilate area after clean-up is complete.

SECTION 7) HANDLING AND STORAGE

General

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective gloves, clothing and other equipment required for the workplace. Prevent handling with incompatible materials such as strong acids, bases and oxidizing agents. Prevent release of this material to the environment; prevent spills and keep away from drains. Never perform any welding, cutting, soldering, drilling or other hot work on an empty vessel, container or piping until all liquid and vapors have been cleared. Inspect containers for leaks before handling. Prevent damage to containers. Assume that empty containers contain residues which are hazardous. Ground and bond container and receiving equipment. Use non-sparking tools. Take action to prevent static discharges. Remove contaminated clothing promptly. Keep contaminated clothing in closed containers; discard or launder before re-wearing.

Wash hands after use. Do not get in eyes, on skin or on clothing. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. Report ventilation failures immediately. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Store in dry, cool areas, out of direct sunlight and away from other sources of heat. Store in original containers. Keep containers securely sealed. Store flammable and combustible liquids in areas that are cool, dry and well ventilated to reduce vapour concentrations. Keep containers securely sealed when not in use. Bond and ground metal containers/cylinders when transferring. Avoid storing in direct sunlight or near other heat sources; eliminate all sources of ignition. Protect containers against banging or other physical damage when storing, transferring, or using them.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Occupational Exposure Limits: 2-ethylhexan-1-ol
SCOEL (EU): 1 ppm TWA

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

| Chemical Name | CANsmg | CANspmm | CANtmg | CANtppm | OSHA STEL (mg/m3) | OSHA STEL (ppm) | OSHA TWA (mg/m3) | OSHA TWA (ppm) |
|------------------------|--------|---------|--------|---------|-------------------|-----------------|------------------|----------------|
| No applicable chemical | - | - | - | - | - | - | - | - |

| Chemical Name | OSHA Carcinogen | OSHA Tables (Z1, Z2, Z3) | OSHA Skin designation | ACGIH STEL (mg/m3) | ACGIH STEL (ppm) | ACGIH TWA (mg/m3) | ACGIH TWA (ppm) | ACGIH TLV Basis |
|------------------------|-----------------|--------------------------|-----------------------|--------------------|------------------|-------------------|-----------------|-----------------|
| No applicable chemical | - | - | - | - | - | - | - | - |

| Chemical Name | ACGIH Carcinogen | ACGIH Notations |
|------------------------|------------------|-----------------|
| No applicable chemical | - | - |

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| | |
|------------------------|-----------------------------------|
| Density | 6.93 lb/gal |
| Specific Gravity | 0.83 |
| <hr/> | |
| Appearance | Colorless liquid |
| Odor Description | Mild; oily-sweet, slightly floral |
| Odor Threshold | 0.075 ppm |
| pH | 7 (0.1% aqueous solution at 20°C) |
| Melting/Freezing Point | -89°C (-128.2 °F) |
| Low Boiling Point | 184°C (363.2°F) |
| High Boiling Point | N/A |
| Flash Point | 75-77°C (167-170°F) |
| Vapor Pressure | 0.93 hPa @ 20 °C |
| Vapor Density | 4.49 (air = 1) |
| Evaporation Rate | < 1 (n-Butyl Acetate = 1) |
| Upper Explosion Level | N/A |
| Lower Explosion Level | N/A |
| Water Solubility | 0.9 g/100 mL; soluble in water |
| Coefficient Water/Oil | Log Kow = 2.9 @ 25°C |
| Viscosity | 9.845 Pa.s @ 20 °C (dynamic) |

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Stability

Stable under normal storage and handling conditions.

Conditions to Avoid

Avoid high temperatures and contact with sources of ignition. Avoid exposing product to air.

Hazardous Reactions/Polymerization

May react violently with oxidizing agents: increased risk of fire and explosion.

Incompatible Materials

Incompatible with strong acids and strong oxidizing agents.

Hazardous Decomposition Products

No data available.

SECTION 11) TOXICOLOGICAL INFORMATION

Likely Route of Exposure

Inhalation, ingestion, skin absorption

Acute Toxicity

LD50Oral: > 2000 mg/kg (rat)
LD50 Dermal: >3000 mg/kg (rabbit)
LC50 Inhalation (4 hrs.): >0.89 to <5.3 mg/L (rat) as mist
Harmful if inhaled

Aspiration Hazard

No data available.

Carcinogenicity

No data available.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Respiratory/Skin Sensitization

No data available.

Serious Eye Damage/Irritation

Causes serious eye irritation

Skin Corrosion/Irritation

Causes skin irritation

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Specific Target Organ Toxicity - Single Exposure

May cause respiratory irritation

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

SECTION 12) ECOLOGICAL INFORMATION

Bioaccumulative Potential

Low potential for bioaccumulation. BCF in fish = 25.33 (calculated). Log Kow <4.

Toxicity

Acute toxicity fishes:
Pimephales promelas
LC50: 28.2 mg/l (96 h)

Acute toxicity fishes:
Leuciscus idus
LC50: 17.1 mg/l (96 h)

Acute toxicity invertebrates:
Daphnia magna
EC50: 39 mg/l (48 h)

Toxicity algae and other aquatic plants:
Desmodesmus subspicatus
EC50: 11.5 mg/l (72 h)

Toxicity aquatic micro-organisms:
NOEC: >300 mg/l (24 h)

Mobility in Soil

Low potential for adsorption in soil. Log Koc = 1.415 (calculated).

Bio-accumulative Potential

Low potential for bioaccumulation. BCF in fish = 25.33 (calculated). Log Kow <4.

Persistence and Degradability

Readily biodegradable in water. 100% biodegradation in 14 days according to test OECD301C.

Other Adverse Effects

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Do NOT discard into any sewers, on the ground or into any body of water.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

SECTION 14) TRANSPORT INFORMATION

| | Transport Canada Information | U.S. DOT Information |
|---|------------------------------|--|
| UN number: | Not Regulated | NA1993 |
| Proper shipping name: | Not Applicable | Combustible liquid, n.o.s. (2-ethylhexan-1-ol) |
| Hazard class: | Not Applicable | Combustible liquid |
| Packaging group: | Not Applicable | III |
| Hazardous substance (RQ): | | No Data Available |
| Marine Pollutant: | No Data Available | No Data Available |
| Note / Special Provision: | Note / Special Provision | No Data Available |
| Toxic-Inhalation Hazard: | | No Data Available |
| Transport in bulk (according to Annex II of MARPOL 73/78): | No Data Available | |

SECTION 15) REGULATORY INFORMATION

| CAS | Chemical Name | % By Weight | Regulation List |
|--------------|-------------------|--------------|--------------------------|
| 0000104-76-7 | 2-ETHYL-1-HEXANOL | 99.5% - 100% | DSL,TSCA,EU_EC_Inventory |

SECTION 16) OTHER INFORMATION

Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

Version 1.0:

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