



辽宁裕丰化工有限公司

LIAONING YUFENG CHEMICAL CO.,LTD

HAZARDOUS CHEMICAL MATERIAL SAFETY DATA SHEET MSDS

CHEMICAL NAME: N-HEXANE

MANUFACTURER: LIAONING YUFENG CHEMICAL CO. , LTD

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LIAONING YUFENG CHEMICAL COMPANY LIMITED

Section 1 - Chemical Product

Name:	N-HEXANE Material Safety Data Sheet
Synonym:	N-HEXANE; Hexyl hydride; Dipropyl; normal-Hexane; Hex
CAS:	110-54-3

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
110-54-3	N-HEXANE	>99%	203-777-6

Hazard Symbols: XN F N

Risk Phrases: 11 38 48/20 62 51/53 65 67

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Highly flammable. Irritating to skin. Harmful : danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. **Harmful:** may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. Dangerous for the environment.

Potential Health Effects

Eye: Causes mild eye irritation.

Skin: Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Causes irritation with burning pain, itching, and redness. Absorbed through the skin.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. May cause central nervous system depression.

Inhalation: Causes respiratory tract irritation. Exposure produces central nervous system depression. Vapors may cause dizziness or suffocation.

Chronic: Prolonged or repeated skin contact may cause defatting and dermatitis. Prolonged or repeated exposure may cause adverse reproductive effects. Chronic exposure may cause visual disturbances. Laboratory experiments have resulted in mutagenic effects. Peripheral neuropathy symptoms include: muscular weakness, paresthesia, numbing of the hands, feet, legs and arms, unsteadiness, and

difficulty in walking and standing. Repeated exposure may cause nervous system abnormalities with muscle weakness and damage, motor in coordination, and sensation disturbances. Chronic exposure produces peripheral neuropathy.

Section 4 - FIRST AID MEASURES

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively. For ingestion, the stomach should be intubated, aspirated, and lavaged with a slurry of activated charcoal--protect the airway from aspiration of gastric contents. Monitor arterial blood gases in cases of severe aspiration.

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 and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. May accumulate static electrical charges, and may cause ignition of its own vapors.

Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. This liquid floats on water and may travel to a source of ignition and spread fire.

Extinguishing Media: Use dry chemical, carbon dioxide, or appropriate foam. Solid streams of water may be ineffective and spread material. Water may be ineffective because it will not cool material below its flash point.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing

precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Use only non-sparking tools and equipment.

Section 7 - HANDLING and STORAGE

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges.

Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor or mist.

Storage: Keep away from heat and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits CAS# 110-54-3: United Kingdom, WEL - TWA: 20 ppm TWA; 72 mg/m³ TWA United Kingdom, WEL - STEL: 60 ppm STEL; 216 mg/m³ STEL United States OSHA: 500 ppm TWA; 1800 mg/m³ TWA Belgium - TWA: 50 ppm VLE; 179 mg/m³ VLE France - VME: 50 ppm VME; 170 mg/m³ VME **Germany:** 50 ppm TWA; 180 mg/m³ TWA Japan: 40 ppm OEL; 140 mg/m³ OEL **Malaysia:** 50 ppm TWA; 176 mg/m³ TWA Netherlands: 25 ppm MAC; 90 mg/m³ MAC **Russia:** 300 mg/m³ TWA Spain: 50 ppm VLA-ED; 179 mg/m³ VLA-ED **Personal Protective Equipment**

Eyes: Wear chemical splash goggles.

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 respirator use.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: clear colorless

Odor: gasoline-like

pH: Not available.

Vapor Pressure: 124 mm Hg @ 20 deg C

Viscosity: 0.31 cps @ 20 deg C
Boiling Point: 69 deg C @ 760 mmHg
Freezing/Melting Point: -95 deg C
Autoignition Temperature: 225 deg C (437.00 deg F)
Flash Point: -22 deg C (-7.60 deg F)
Explosion Limits, lower: 1.1 vol %
Explosion Limits, upper: 7.5 vol %
Decomposition Temperature:
Solubility in water: Insoluble.
Specific Gravity/Density: 0.66 @ 20 C
Molecular Formula: C₆H₁₄
Molecular Weight: 86.18

Section 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Ignition sources, excess heat, electrical sparks, confined spaces.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 110-54-3: MN9275000 LD50/LC50:
CAS# 110-54-3: Draize test, rabbit, eye: 10 mg Mild; Inhalation, mouse: LC50 = 150000 mg/m³/2H; Inhalation, rat: LC50 = 48000 ppm/4H; Inhalation, rat: LC50 = 627000 mg/m³/3M; Oral, rat: LD50 = 25 gm/kg.
Carcinogenicity:n-Hexane - Not listed by ACGIH, IARC, or NTP.
Other: See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:Estimated BCF values = 2.24 and 2.89. These values suggest that hexane will show low bioconcentration in aquatic organisms. Estimated Koc value = 4.11. This product will show slight soil mobility and is expected to rapidly volatilize from moist surface soils.

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: N-HEXANE

IMDG Class: 3

UN Number: 1208

Packing Group: II

IMO

Shipping Name: N-HEXANE

IMDG Class: 3

UN Number: 1208

Packing Group: II

RID/ADR

Shipping Name: N-HEXANE

Hazard Class: 3

UN Number: 1208

Packing group: II

USA RQ: CAS# 110-54-3: 5000 lb final RQ; 2270 kg final RQ

Marine Pollutant: YES

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN F N

Risk Phrases: R 11 Highly flammable. R 38 Irritating to skin.

R 48/20 Harmful : danger of serious damage to health. by prolonged exposure through inhalation.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 62 Possible risk of impaired fertility.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

S 16 Keep away from sources of ignition – No-smoking.

S 29 Do not empty into drains.

S 33 Take precautionary measures against static discharges.

S 36/37 Wear suitable protective clothing and gloves.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

S 62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

WGK (Water Danger/Protection)

CAS# 110-54-3: 1

Canada

CAS# 110-54-3 is listed on Canada's DSL List.

CAS# 110-54-3 is listed on Canada's Ingredient Disclosure List.

US FEDERAL**TSCA**

CAS# 110-54-3 is listed on the TSCA inventory.

Section 16 OTHER INFORMATION**Reference date:**

China petroleum and chemical corporation security ministry of supervision
(Petroleum chemical poison manual)

Solvent device technology regulations/ Post operation procedures

Fill-in Date: 2019.12.24

Fill in DEPT. liaoning yufeng chemical co., LTD. Solvent device

Data audit unit: office

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