

HEXANE 20534

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)

Product name	HEXANE
Product code	20534
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, colourless

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Potential Health Effects

Routes of Exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye Contact

May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin Contact

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. 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 is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get

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into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.). Breathing of vapor or mist is possible.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) 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

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:., stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness)

Target Organs

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

Carcinogenicity

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive Hazard

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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.

Other Information

No data

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
N-HEXANE	110-54-3	>=60-<70%
HEXANE ISOMERS		>=30-<40%

4. FIRST AID MEASURES**Eyes**

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder 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

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to Physician

Hazards: 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 persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be

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weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

dry chemical, foam, carbon dioxide (CO₂)

Hazardous Combustion Products

May form:, carbon dioxide and carbon monoxide, various hydrocarbons

Precautions for Fire-Fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

Flammability Class for Flammable Liquids

Flammable Liquid Class IB Flammable Liquid Class IB

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

Environmental Precautions

No data

Methods for Cleaning Up

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Per good environmental management practices, prevent run-off to sewers, streams and other bodies of water. Stop spill at the source. Cover sewer grates and dike the spill. Absorb spilled material on to absorbents. Shovel materials into container. Close container tightly and dispose of properly. Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling

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. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances. Keep containers closed when not in use. Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

N-HEXANE

110-54-3

ACGIH	time weighted average	50 ppm
NIOSH	Recommended exposure limit (REL):	50 ppm
NIOSH	Recommended exposure limit (REL):	180 mg/m3
OSHA Z1	Permissible exposure limit	500 ppm
OSHA Z1	Permissible exposure limit	1,800 mg/m3

General Advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

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Exposure Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin and Body Protection

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

Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	liquid,
Colour	colourless
Odour	hydrocarbon-like
Boiling point/range	155.7 °F / 68.7 °C
Melting point/range	-137.7 °F / -94.3 °C
pH	No data
Flash point	-7.01 °F / -21.67 °C
Evaporation rate	9 (N-Butyl Acetate)
Explosion limits	1.1 %(V) 7.5 %(V)
Vapour pressure	20.39796 kPa @ 77 °F / 25 °C
Vapour density	2.97
Density	0.6548 g/cm ³ @ 77 °F / 25 °C 5.63 lb/gal @ 61 °F / 16 °C
Solubility	insoluble in water
Partition coefficient (n-octanol/water)	No data
Autoignition temperature	437 °F / 225 °C

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10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to Avoid

Avoid contact with:

Incompatible Products

Avoid contact with:, strong oxidizing agents

Hazardous Decomposition Products

May form:, carbon dioxide and carbon monoxide, various hydrocarbons

Hazardous Reactions

Product will not undergo hazardous polymerization.

Thermal Decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity

N-HEXANE LD 50 Rat: 25 g/kg

HEXANE ISOMERS LD 50 Rat: 5,000 mg/kg

Acute Inhalation Toxicity

N-HEXANE LC 50 Rat: 48000 ppm, 4 h

HEXANE ISOMERS LC 50 Rat: 3367 ppm, 4 h

Acute Dermal Toxicity

N-HEXANE LD 50 Rabbit: 1.3 g/kg

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HEXANE ISOMERS

LD 50 Rabbit: 2,000 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental Fate and Pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

IMDG:

UN1208, HEXANES 3, II

IATA_P:

UN1208, Hexanes 3, II

IATA_C:

UN1208, Hexanes 3, II

CFR_ROAD:

UN1208, Hexanes 3, II

CFR_RAIL:

UN1208, Hexanes 3, II

CFR_INWTR:

UN1208, Hexanes 3, II

IMDG_INWTR:

UN1208, HEXANES 3, II

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IMDG_ROAD:
UN1208, HEXANES 3, II
IMDG_RAIL:
UN1208, HEXANES 3, II

Dangerous goods descriptions (if indicated above) may not reflect package size, quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

BENZENE

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

BENZENE

SARA Hazard Classification Fire Hazard
 Acute Health Hazard
 Fire Hazard
 Acute Health Hazard

SARA 313 Component(s)
N-HEXANE 110-54-3 69%

OSHA Hazards Flammable Liquid
 Moderate skin irritant
 Moderate eye irritant

	Health	Flammability	Reactivity	Other
HMIS	2	3	0	
NFPA	1	3	0	

16. OTHER INFORMATION

ASHLAND
SAFETY DATA SHEET

Page: 10
Revision Date: 08/09/2007
Print Date: 11/16/2007
MSDS Number: R0004344
Version: 1.1

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The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).