

INTERNATIONAL_GASES_AND_CHEMICALS_LTD

MATERIAL SAFETY DATA SHEETS

DATE: 12/15/00

SUPPLIER ADDRESS: SPEEDWELL RD
PARKHOUSE EAST
NEWCASTLE-U-LYME

EMERGENCY PHONE: (178) 256-5556
NUMBER

1. CHEMICAL PRODUCT

PRODUCT NAME: N-HEXANE

SYNONYMS: Hexane, Hexyl hydride

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredient Name	Formula	CAS#	Concentration	Exposure Limits (PPM)			
				ACGIH TLV	OSHA PEL	MAC	Other STEL
N-HEXANE	C6H14	110-54-3	99+%	50	500	25	NE

Note: NE = NONE ESTABLISHED

3. HAZARD IDENTIFICATION

*** EMERGENCY OVERVIEW ***

Flammable liquid and vapor.

Can form explosive mixtures with air.

May cause central nervous system damage.

May cause irritation to eyes, skin, mucous membranes, and respiratory tract.

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Inhalation , Ingestion , Skin

ACUTE EFFECTS: If inhaled, may be irritating to mucous membrane and upper respiratory tract. Possible central nervous system depression. Symptoms include dizziness, lightheadedness, unconsciousness and intoxication. Exposure may cause tingling of extremities and depressed sensations. Prolonged exposure at high concentrations can lead to nerve damage. Can be absorbed through the skin. Skin exposure can cause irritations and redness. Skin contact may cause defatting of the tissue. Eye contact may cause irritation, redness, or blurred vision. Ingestion causes irritation and burning sensations of the upper gastrointestinal tract.

CHRONIC EFFECTS: Possible dermatitis from skin contact.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None known

OTHER EFFECTS OF OVEREXPOSURE: None

CARCINOGENICITY (US Only):

NTP - No

IARC MONOGRAPHS - No

OSHA REGULATED - No

Continued ...

4. FIRST AID MEASURES

INHALATION: Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

EYE CONTACT: Immediately flush with copious amounts of water for at least 15 minutes.

SKIN CONTACT: Immediately flush with copious amounts of water for at least 15 minutes while removing contaminated clothing.

INGESTION: DO NOT INDUCE VOMITING. Have victim drink 8 to 10 oz. (240 to 300 ml.) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration to the victim.

IN EVENT OF EXPOSURE, CONSULT A PHYSICIAN

NOTE TO PHYSICIAN: None

5. FIRE FIGHTING MEASURES

FLASH POINT: -22 deg.C

AUTOIGNITION TEMPERATURE: 225 deg.C

FLAMMABLE LIMITS: Vol. %
LOWER: 1.2
UPPER: 7.4

EXTINGUISHING MEDIA: Carbon dioxide, foam, or dry chemical.

SPECIAL FIRE FIGHTING INSTRUCTION AND EQUIPMENT: Wear self-contained breathing apparatus and full protective clothing. Keep fire exposed cylinders cool with water spray. If possible, stop the product flow.

HAZARDOUS COMBUSTION PRODUCTS: Toxic carbon monoxide may be given off during combustion.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Dangerous fire hazard and moderate explosion hazard when heated. Vapors may travel a considerable distance to the source of ignition and flash back. May

form explosive mixture in air. Cylinder rupture may occur under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

CLEAN UP PROCEDURES: Evacuate and ventilate area. Shut off source if possible and remove source of heat. Remove all sources of ignition. Absorb spills using a solid absorbant such as vermiculite. Contain spills and prevent run off into sewers and waterways.

SPECIALIZED EQUIPMENT: None

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in well ventilated areas. Keep valve protection cap on cylinders when not in use. Store away from heat, flame, and sparks.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate general and local exhaust ventilation to maintain concentrations below exposure and flammable limits.

PERSONAL PROTECTION

EYE/FACE PROTECTION: Safety glasses

SKIN PROTECTION: Impervious gloves, coveralls, boots, and/or other resistant protective clothing.

RESPIRATORY PROTECTION: In case of leakage, use self-contained breathing apparatus.

OTHER PROTECTIVE EQUIPMENT: Safety shoes when handling cylinders.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless

ODOR: Gasoline-like

PHYSICAL STATE: Liquid

VAPOR PRESSURE: @60 deg.C: 100 mm Hg

Continued ...

VAPOR DENSITY (AIR=1): 3
BOILING POINT (C): 69 deg.C
SOLUBILITY IN WATER: Insoluble
SPECIFIC GRAVITY (H2O=1): @20 deg.C:
0.66
EVAPORATION RATE: N/Av
ODOR THRESHOLD: 65 ppm

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage conditions.

CONDITIONS TO AVOID: Storage in poorly ventilated areas. Storage near a heat source.

MATERIALS TO AVOID: Oxidizing agents.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

LETHAL CONCENTRATION (LC50): 96,000 ppm, Rat 1 hour
LETHAL DOSE 50 (LD50): N/Av
TERATOGENICITY: N/Av
REPRODUCTIVE EFFECTS: N/Av
MUTAGENICITY: N/Av

12. ECOLOGICAL INFORMATION

No adverse ecological effects are expected.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of non-refillable cylinders in accordance with federal, state and local regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place. Waste material may be burned in a controlled manner in an approved incinerator.

14. TRANSPORT INFORMATION

CONCENTRATION: 99%
DOT DESCRIPTION (US ONLY):
PROPER SHIPPING NAME: Hexanes
HAZARD CLASS: 3 (flammable), Packing Group II
IDENTIFICATION NUMBER: UN1208
REPORTABLE QUANTITIES: 5000 lb.
LABELING: FLAMMABLE LIQUID

ADR/RID (EU Only): Class 3, 3(b)

SPECIAL PRECAUTIONS: Cylinders should be transported in a secure upright position in a well ventilated truck.

15. REGULATORY INFORMATION

OSHA: Process Safety Management:
Material is not listed in appendix A of 29 CFR 1910.119 as highly hazardous chemical.

TSCA: Material is listed in TSCA inventory.

SARA: The threshold planning quantity for material is 10,000 lbs.

EU NUMBER: 203-777-6

NUMBER IN ANNEX 1 OF DIR 67/548:
Material is listed in annex 1.

EU CLASSIFICATION: N/Av

R: 11-20-48

S: 9-16-24/25-29-51

16. OTHER INFORMATION

OTHER PRECAUTIONS: Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his written consent is a violation of federal law (49 CFR).

ABBREVIATIONS:

N/Av - Not Applicable
N/Av - Not Available
SA - Simple Asphyxiant
NE - None Established

Continued ...

DISCLAIMER: Information included in this document is given to the best of our knowledge, however, no warranty is made that the information is accurate or complete. We do not accept any responsibility for damages by the use of the document.