

MSDS-HEXANE

AMERICAN NIAGARA

6690 JONES MILL COURT / BUILDING "A&B"

NORCROSS, GEORGIA USA 30092

PHONE 770-441-5900 / FAX 770-409-7259

E-MAIL ANC@MINDSPRING.com / WEBPAGE www.american-niagara.com

HEXANE (n-HEXANE)

MSDS Number: H2381 --- Effective Date: 07-05

1. Product Identification

Hexanes, Normal Hexane; Hexyl Hydride; Hexane 95%

PREDOMINANT CAS No.: 110-54-3 (n-hexane) -KEY INGREDIENT

*additional ingredients are non-hazardous and work in clarity and extended life. Some are trade secrets.

2. Composition/Information on Ingredients

| Ingredient | CAS No | Percent | Hazardous |
|--------------------|----------|----------|-----------|
| Hexane | 110-54-3 | 70- 100% | Yes |
| Methylcyclopentane | 96-37-7 | 1 - 2% | Yes |

3. Hazards Identification

Health Rating: 1 - Slight

Flammability Rating: 3 - Severe (Flammable)

Reactivity Rating: 0 - None

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Red (Flammable)

Potential Health Effects

The health hazards addressed are for the major component: n-hexane.

Inhalation:

Inhalation of vapors irritates the respiratory tract. Overexposure may cause lightheadedness, nausea, headache, and blurred vision. Greater exposure may cause muscle weakness, numbness of the extremities, unconsciousness and death.

Ingestion:

May produce abdominal pain, nausea. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms expected to parallel inhalation.

Skin Contact:

May cause redness, irritation, with dryness, cracking.

Eye Contact:

Vapors may cause irritation. Splashes may cause redness and pain.

Chronic Exposure:

Repeated or prolonged skin contact may defat the skin and produce irritation and dermatitis. Chronic inhalation may cause peripheral nerve disorders and central nervous system effects.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance. May affect the developing fetus.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

Aspiration hazard. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Remove any contaminated clothing. Wipe off excess from skin. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally.

Get medical attention immediately.

Note to Physician:

BEI=2,5-hexadione in urine, sample at end of shift at workweeks end, 5 mg/g creatine. Also, measure n-hexane in expired air. Analgesics may be necessary for pain management, there is no specific antidote. Monitor arterial blood gases in cases of severe aspiration.

5. Fire Fighting Measures

Flash point: -24C -6F

Autoignition temperature: 224C (435F)

Flammable limits in air % by volume:

lcl: 1.2; ucl: 7.7

Extremely Flammable Liquid and Vapor! Vapor may cause flash fire. Dangerous fire hazard when exposed to heat or flame.

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Contact with oxidizing materials may cause extremely violent combustion. Explodes when mixed @ 28C with dinitrogen tetraoxide.

Sensitive to static discharge.

Fire Extinguishing Media:

Dry chemical, foam or carbon dioxide. Water may be ineffective.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool. Vapors can flow along surfaces to distant ignition source and flash back. Vapor explosion hazard exists indoors, outdoors, or in sewers.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from direct sunlight and any area where the fire hazard may be acute. Store in tightly closed containers (preferably under nitrogen atmosphere). Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

N-Hexane [110-54-3]:

-OSHA Permissible Exposure Limit (PEL): 500 ppm (TWA)

-ACGIH Threshold Limit Value (TLV): 50 ppm (TWA), Skin

other isomers of hexane

-ACGIH Threshold Limit Value (TLV): 500 ppm (TWA), 1000ppm (STEL)

Ventilation System:

ENGINEERING CONTROLS: [Provide adequate general and local exhaust ventilation to maintain concentrations below exposure and flammable limits.](#)

RESPIRATORY PROTECTION: [In case of leakage, use self-contained breathing apparatus.](#)

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Clear, colorless liquid.

Odor:

Light odor.
 Solubility:
 Insoluble in water.
 Specific Gravity:
 0.66
 pH:
 No information found.
 % Volatiles by volume @ 21C (70F):
 100
 Boiling Point:
 ca. 68C (ca. 154F)
 Melting Point:
 ca. -95C (ca. -139F)
 Vapor Density (Air=1):
 3.0
 Vapor Pressure (mm Hg):
 130 @ 20C (68F)
 Evaporation Rate (BuAc=1):
 9

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Heat will contribute to instability.
 Hazardous Decomposition Products:
 May produce acrid smoke and irritating fumes when heated to decomposition.
 Hazardous Polymerization:
 Will not occur.
 Incompatibilities:
 Strong oxidizers.
 Conditions to Avoid:
 Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

N-Hexane: Oral rat LD50: 28710 mg/kg. Irritation eye rabbit: 10 mg mild. Investigated as a tumorigen, mutagen and reproductive effector.

-----\Cancer Lists\-----
 ---NTP Carcinogen---

| Ingredient | Known | Anticipated | IARC Category |
|------------------------------|-------|-------------|---------------|
| Hexane (110-54-3) | No | No | None |
| Methylcyclopentane (96-37-7) | No | No | None |

12. Transport Information

Domestic (Land, D.O.T.)
 Proper Shipping Name: HEXANES
 Hazard Class: 3
 UN/NA: UN1208
 Packing Group: II
 Information reported for product/size: 215L

International (Water, I.M.O.)
 Proper Shipping Name: HEXANE
 CONTAINS HEXANE
 Hazard Class: 3.1
 UN/NA: UN1208
 Packing Group: II
 Information reported for product/size: 215L

-----\Federal, State & International Regulations - Part 1\-----
 -SARA 302- -----SARA 313-----

| Ingredient | RQ | TPQ | List | Chemical Catg. |
|------------------------------|----|-----|------|----------------|
| Hexane (110-54-3) | No | No | Yes | No |
| Methylcyclopentane (96-37-7) | No | No | No | No |

Federal, State & International Regulations - Part 2
 -RCRA- -TSCA-

| Ingredient | CERCLA | 261.33 | 8(d) |
|-------------------|--------|--------|------|
| Hexane (110-54-3) | 5000 | No | No |

Methylcyclopentane (96-37-7) No No No

14. Other Information

NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0

Label Hazard Warning:

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE.
HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES IRRITATION TO
SKIN, EYES AND RESPIRATORY TRACT. AFFECTS THE CENTRAL AND PERIPHERAL
NERVOUS SYSTEMS.

Label Precautions:

Keep away from heat, sparks and flame.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Avoid breathing vapor or mist.

Avoid contact with eyes, skin and clothing.

Label First Aid:

Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. In all cases call a physician.

Product Use:

GENERAL PURPOSE SOLVENT Revision Information:

MSDS Section(s) changed since last revision of document include: 8.

Disclaimer:

American Niagara provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Prepared by: AMERICAN NIAGARA - ATLANTA, GA USA

Phone Number: 770-441-5900 (U.S.A.) / fax 770-409-7259 / e-mail victor@american-niagara.com