

Hexanes

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hexanes

Synonyms/Generic Names: None

SDS Number: 326.00

Product Use: For Educational Use Only

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target organ effect, Irritant, Toxic by ingestion, Teratogen

Target Organs: Peripheral nervous system, Kidney, Testes

Signal Words: Danger

Pictograms:



GHS Classification:

| | |
|--|-------------|
| Flammable liquids | Category 2 |
| Acute toxicity, Oral | Category 4 |
| Skin irritation | Category 2 |
| Eye irritation | Category 2A |
| Reproductive toxicity | Category 2 |
| Specific target organ toxicity – single exposure | Category 2 |
| Specific target organ toxicity – repeated exposure, Inhalation | Category 2 |
| Aspiration hazard | Category 1 |
| Acute aquatic toxicity | Category 2 |
| Chronic aquatic toxicity | Category 2 |

GHS Label Elements, including precautionary statements:

Hazard Statements:

| | |
|-----------|---|
| H225 | Highly flammable liquid and vapor. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335+H336 | May cause respiratory irritation, and drowsiness or dizziness. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H371 | May cause damage to organs. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary Statements:

| | |
|----------------|--|
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P260 | Do not breathe dust/fumes/dust/mist/vapors/spray. |
| P273 | Avoid release to the environment. |
| P281 | Use personal protective equipment as required. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. |
| P331 | Do NOT induce vomiting. |

Potential Health Effects

| | |
|-------------------|--|
| Eyes | Causes eye irritation. |
| Inhalation | May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. |
| Skin | May be harmful if absorbed through skin. Causes skin irritation. |
| Ingestion | Toxic if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage. |

NFPA Ratings

| | |
|------------------------|---------------|
| Health | 2 |
| Flammability | 3 |
| Reactivity | 0 |
| Specific hazard | Not Available |

HMIS Ratings

| | |
|-------------------|---|
| Health | 2 |
| Fire | 3 |
| Reactivity | 0 |
| Personal | G |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | EINECS# / ELINCS# | Formula | Molecular Weight |
|-----------|----------|-------|-------------------|---------|------------------|
| Hexanes | >99 | N/A | N/A | N/A | N/A |

4. FIRST-AID MEASURES

| | |
|-------------------|--|
| Eyes | In case of eye contact, rinse with plenty of water and seek medical attention immediately. |
| Inhalation | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately. |
| Skin | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention. |
| Ingestion | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately. |

5. FIRE-FIGHTING MEASURES

| | |
|--|--|
| Suitable (and unsuitable) extinguishing media | Flammable Liquid. For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far away as possible. Use very large quantities of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. |
| Special protective equipment and precautions for firefighters | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| Specific hazards arising from the chemical | Emits toxic fumes (carbon oxides) under fire conditions. Vapor can cause flash fire. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--|---|
| Personal precautions, protective equipment and emergency procedures | See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| Methods and materials for containment and cleaning up | Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. Keep away from sources of ignition. No smoking. Take measure to prevent the buildup of electrostatic charge.

Conditions for safe storage, including any incompatibilities

Store in tightly closed, containers in a cool, dry, well ventilated area. Keep away from heat, sparks and flame. Maintain adequate ventilation. Ground all equipment containing this material. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

| Component | Exposure Limits | Basis | Entity |
|-----------------|-----------------------------------|-------------------|--------|
| n-Hexane | 50 ppm 176 mg/m ³ | TLV | ACGIH |
| | 500 ppm 1800 mg/m ³ | PEL | OSHA |
| | 50 ppm 180 mg/m ³ | REL | NIOSH |
| 2-Methylpentane | 510 ppm 1800 mg/m ³ | CEIL (15 minutes) | NIOSH |

| | | | |
|-----------------|------------------------------------|-------------------|-------|
| | 100 ppm 350 mg/m ³ | REL | NIOSH |
| | 500 ppm 1760 mg/m ³ | TLV | ACGIH |
| | 1000 ppm 3500 mg/m ³ | STEL | ACGIH |
| 3-Methylpentane | 510 ppm 1800 mg/m ³ | CEIL (15 minutes) | NIOSH |
| | 100 ppm 350 mg/m ³⁵ | REL | NIOSH |
| | 500 ppm 1760 mg/m ³ | TLV | ACGIH |
| | 1000 ppm 3500 mg/m ³ | STEL | ACGIH |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

| | |
|-------------------|---|
| Eyes | Face shield and safety glasses. |
| Inhalation | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| Skin | Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. Handle with gloves. |
| Other | Not Available |

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|------------------------------------|
| Appearance (physical state, color, etc.) | Opaque, light straw-colored liquid |
| Odor | Light hydrocarbons |
| Odor threshold | Not Available |
| pH | Not Available |
| Melting point/freezing point | -95°C (-135°F) |
| Initial boiling point and boiling range | 69°C (156°F) |
| Flash point | -22°C (-7°F): Tagliabue closed cup |
| Evaporation rate | >1 |
| Flammability (solid, gas) | Flammable Liquid. |
| Upper/lower flammability or explosive limit | 1.1-7.5% |
| Vapor pressure | @ 20°C (68°F): 120 mmHg |
| Vapor density | 3.0 |
| Relative density | 0.672 g/cm ³ |
| Solubility (ies) | Negligible |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | 225°C (437°F) |
| Decomposition temperature | Not Available |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur. |
| Conditions to Avoid | Keep away from heat, flame and sparks. Extremes of temperature and direct sunlight. |
| Incompatible Materials | Oxidizers |
| Hazardous Decomposition Products | Carbon oxides. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Diethyl Ether

| | |
|--------------------|--|
| Skin | Not Available |
| Eyes | Not Available |
| Respiratory | LC50 Inhalation – rat – 4 hours – 48,000 ppm |
| Ingestion | LD50 Oral – rat – 25000 mg/kg – 4 hours |

Carcinogenicity

| | |
|--------------|--|
| IARC | No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| NTP | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| OSHA | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

Signs & Symptoms of Exposure

| | |
|-------------------|--|
| Eyes | Causes eye irritation. |
| Inhalation | May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. |
| Skin | May be harmful if absorbed through skin. Causes skin irritation. |
| Ingestion | Toxic if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage. |

| | |
|---------------------------------------|---------------|
| Chronic Toxicity | Not Available |
| Teratogenicity | Not Available |
| Mutagenicity | Not Available |
| Embryotoxicity | Not Available |
| Specific Target Organ Toxicity | Not Available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| | |
|-----------------------------|---------------|
| Aquatic Vertebrate | Not Available |
| Aquatic Invertebrate | Not Available |
| Terrestrial | Not Available |

| | |
|--------------------------------------|--|
| Persistence and Degradability | Not Available |
| Bioaccumulative Potential | Not Available |
| Mobility in Soil | Not Available |
| PBT and vPvB Assessment | Not Available |
| Other Adverse Effects | Toxic to aquatic life with long lasting effects. |

13. DISPOSAL CONSIDERATIONS

| | |
|---------------------------|---|
| Waste Residues | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues. |
| Product Containers | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

| | |
|------------------|---------------------------|
| US DOT | UN1208, Hexanes, 3, pg II |
| TDG | UN1208, HEXANES, 3, pg II |
| IMDG | UN1208, HEXANES, 3, pg II |
| Marine Pollutant | Yes |
| IATA/ICAO | UN1208, Hexanes, 3, pg II |

15. REGULATORY INFORMATION

| | |
|---------------------------|--|
| TSCA Inventory Status | All ingredients are listed on the TSCA inventory. |
| DSCL (EEC) | All ingredients are listed on the DSCL inventory. |
| California Proposition 65 | Not Listed |
| SARA 302 | Not Listed |
| SARA 304 | Not Listed |
| SARA 311 | n-Hexane |
| SARA 312 | n-Hexane |
| SARA 313 | Listed: n-Hexane |
| WHMIS Canada | Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2B: Material causing other toxic effects (TOXIC). |

16. OTHER INFORMATION

| Revision | Date |
|------------|------------|
| Revision 1 | 01/30/2013 |
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| | |

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