# G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

## 1. PRODUCT IDENTIFIER

PRODUCT NAME:-----> Hexane (All Grades)

MIXTURE OF ISOMERS

PRODUCT NUMBER(S)-----> 175300, 175310

TRADE NAMES/SYNONYMS----> Mixture of n-Hexane and Hexane isomers

CAS-No: 110-54-3 CHEMICAL FAMILY: Aliphatic Hydrocarbon

**RECOMMENDED USE:** Manufacture of substances. Laboratory chemicals. USES ADVISED AGAINST: No information available

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET Company: G.J. CHEMICAL CO., INC. Address: 40 VERONICA AVENUE SOMERSET, NJ 08873 Telephone: 1-973-589-1450 Fax: 1-973-589-3072

Emergency Telephone Number Emergency Phone: 1-800-424-9300 (CHEMTREC)

#### 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS) Flammable liquids (Category 2) Skin irritation (Category 2) Eye irritation (Category 2A) Reproductive toxicity (Category 2) Specific target organ toxicity - single exposure (Category 3) Specific target organ toxicity - repeated exposure, Oral (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



Pictogram

Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement(s)** 

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P321 Specific treatment (see supplemental first aid instructions on this label). P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P391 Collect spillage.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

### 3. <u>INGREDIENTS</u>

| Ingredient | CAS No.  | % by W<br>Range | T. CLASSIFICATION  |
|------------|--|-----------------|--|
| n-Hexane   | 110-54-3<br>EC-No.203-777-6<br>Index-No.601-037-00-0 |                 | Flammable liquids (Category 2)<br>Skin irritation (Category 2)<br>Eye irritation (Category 2A)<br>Reproductive toxicity (Category 2)<br>STOT-SE (Category 3)<br>STOT-RE (Category 2), oral<br>STOT-RE (Category 2), Inhalation<br>Aspiration hazard (Category 1)<br>Acute aquatic toxicity (Category 2)<br>Chronic aquatic toxicity (Category 2) |
| other Hexa | ane isomers varies                                   |                 | Flammable liquids (Category 2)<br>Skin irritation (Category 2)<br>Reproductive toxicity (Category 2)<br>STOT-SE (Category 3)<br>STOT-RE (Category 2), Inhalation<br>Aspiration hazard (Category 1)<br>Acute aquatic toxicity (Category 2)<br>Chronic aquatic toxicity (Category 2)   |
| Methylcyc  | lopentane 96-37-7<br>EC-No.202-503-2                 |                 | Flammable liquids (Category 2)<br>Acute toxicity, Oral (Category 4)<br>Skin irritation (Category 2)<br>Eye irritation (Category 2A)<br>STOT-SE (Category 3), Respiratory System<br>Aspiration hazard (Category 1)  |
| Heptane a  | ll isomers Mixture                                   | 1-3             |  |

| Cyclopentane | 287-92-3<br>EC-No.206-016-6 | <br> 1-3<br>           | <br>  Flammable liquids (Category 2)<br>  Acute aquatic toxicity (Category 3)<br>  Chronic aquatic toxicity (Category 3)   |
|--------------|-----------------------------|------------------------|--|
| Cyclohexane  | 110-82-7<br>EC-No.203-806-2 | 0-2<br> <br> <br> <br> | <br>  Flammable liquids (Category 2)<br>  Skin irritation (Category 2)<br> STOT-SE (Category 3), Central Nervous<br> System<br>  Aspiration hazard (Category 1)<br>  Acute aquatic toxicity (Category 1) |

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## 4. FIRST-AID PROCEDURES

## INHALATION: HEXANES

\*\*<u>FIRST AID- Remove from exposure area to fresh air immediately. If</u> breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

### SKIN CONTACT: HEXANES

\*\*<u>FIRST AID- Remove contaminated clothing and shoes</u> <u>immediately. Wash affected area with soap or mild detergent and</u> <u>large amounts or water until no evidence of chemical remains</u> (approximately 15-20 minutes). Do not use ointments. Get <u>medical attention immediately.</u>

## EYE CONTACT: HEXANES

\*\*FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Get medical attention immediately.

#### **INGESTION: HEXANES**

\*\*<u>FIRST AID- Do not induce vomiting. Never give anything by mouth to</u> an unconscious person. Rinse mouth with water. If victim is drowsy or unconscious, place on the left side with head down. <u>Immediately consult a physician or poison control center, treat</u> <u>symptomatically</u>. Note to physicians: Exposure to high concentrations of this material may be associated with cardiac arrhythmias. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias. Other drugs with less arrhythmogenic potential should be considered.

## 5. FIRE FIGHTING MEASURES

#### **SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:**

FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. VAPOR-AIR MIXTURES ARE EXPLOSIVE.

| Flash Point: - 20°F (TCC) | LEL %:1.1 |
|---------------------------|-----------|
| Auto-ignition: 437°F      | UEL %:7.5 |

SUITABLE EXTINGUISHING MEDIA: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

**<u>CONDITIONS OF FLAMMABILITY</u>**: Flammable in the presence of a source of ignition when the temperature is above the flash point.

ADVICE FOR FIREFIGHTERS: Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not enter fire area without structural fire fighter's protective equipment including NIOSH approved self contained breathing apparatus in positive pressure mode. Use water spray to knock down vapors. Use halon, carbon dioxide extinguisher or dry powder for small fires. Large fires are best controlled by alcohol foam, fog, and water spray. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire (1990 Emergency Response Guidebook, DOT P 1800.5, guide page 26). Extinguish only if fire can be stopped. Use flooding amounts of water as a fog; solid streams may be ineffective. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors; keep upwind. If fire is uncontrollable or containers are exposed to direct flame, water may be ineffective (NFPA 325M, Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1991). Fire fighters should wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Do Not Use: Water in straight hose stream will scatter and spread fire and should not be used.

Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to

extreme heat. Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing.

<u>UNUSUAL FIRE AND EXPLOSION HAZARDS</u>: Keep containers tightly closed. NFPA Class 1-B Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Vapor is heavier than air and can travel considerable distance to a source of ignition and flashback. Liquid floats on water.

<u>COMBUSTION PRODUCTS:</u> Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

# 6. ACCIDENTAL RELEASE MEASURES

<u>PERSONAL PROTECTIVE MEASURES:</u> Extremely Flammable; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

<u>METHODS FOR CONTAINMENT AND CLEAN UP:</u> Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

# 7. HANDLING AND STORAGE

PERSONAL PROTECTIVE MEASURES: This material presents a fire hazard. Liquid quickly evaporates and forms vapor (fumes), which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing.

<u>HANDLING INFORMATION</u>: Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

**STATIC HAZARD**: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information

refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

<u>CONDITIONS FOR SAFE STORAGE</u>: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. A refrigerated room is preferable for materials with a flash point temperature lower than 70°F. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use. Do not take internally.

<u>CONTAINER WARNINGS</u>: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner.

### 8. EXPOSURE CONTROL (PERSONAL PROTECTION)

| Ingredient      | CAS No.   | % by WT.<br>Range | Exposure<br>Limits                                      |
|-----------------|---|-------------------|---|
| n-Hexane Ind    | 110-54-3<br>EC-No.203-777-6<br>ex-No.601-037-00-0 | 40-6<br> <br>     | 50ppm TLV(ACGIH)<br> 50ppm TWA(OSHA)<br> 1100ppm (IDLH) |
| other Hexane    | isomers varies                                    | 40-60<br> <br>    | 500ppm(ACGIH)<br> <br> <br> 1000ppm(STEL)               |
| Methylcyclope   | ntane 96-37-7<br>EC-No.202-503-2                  | 5-20              | N.E.  |
| Heptane all iso | omers Mixture                                     | 1-3<br>           | 400ppm(ACGIH)<br> 500ppm(STEL)                          |
| Cyclopentane    | 287-92-3<br>EC-No.206-016-6                       | i 1-3             | 600ppm(ACGIĤ)<br>                                       |
| Cyclohexane     | 110-82-7<br>EC-No.203-806-2                       | 0-2<br>           | 100ppm(ACGIH)<br> 300ppm(OSHA)                          |

#### EXPOSURE GUIDELINES:

Key: (PEL) = Permissible Exposure Limit OSHA

(TLV) = Threshold Limit Value OSHA & ACGIH

(STEL) = Short Term Exposure Limit ACGIH (WEEL) = USA. Workplace Environmental Exposure Levels (TWA) = Time Weighted Average CAS = Chemical Abstracts Registry Number IDLH = Immediate Danger to Life and Health N.E. =None Established

**EXPOSURE GUIDELINES**: Consider the potential hazards of this material (Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

**ENGINEERING CONTROLS:** Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

<u>RESPIRATORY PROTECTION</u>: For known vapor concentrations use a NIOSH/MSHA air purifying respirator with full face-piece and organic vapor cartridge for exposures >1 <10 times ACGIH TLV. For exposures greater than 10 times ACGIH TLV of for unknown vapor concentrations use positive pressure self contained breathing apparatus with full face-piece.

**BODY CLOTHING**: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

<u>SKIN PROTECTION</u>: Employee must wear appropriate protective gloves to prevent contact with this substance. Use Butyl Rubber chemical resistant gloves.

<u>EYE/FACE PROTECTION</u>: Use safety eyewear with splash-guards or face shield. Emergency shower and eyewash should be easily accessible to the work area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, COLOR AND ODOR: Hexane is a clear, colorless liquid with a characteristic hydrocarbon odor.

ODOR THRESHOLD: No data available pH: No Data Available MOLECULAR WEIGHT: 86.18 amu **MELTING POINT:** -95 °C (-139 °F) 68 - 70 °C (154 - 158 °F) **BOILING POINT:** SPECIFIC GRAVITY: 0.675 DENSITY (25°C): 0.672 g/ml (25°C) VAPOR PRESSURE: 140mmHg @ 20°C (68.0°F) VAPOR DENSITY: 3.0 WATER SOLUBILITY: Negligible PARTITION COEFFICIENT N-No data available OCTANOL/WATER FLASH POINT: -23 °C (-9 °F) - closed cup **EVAPORATION RATE (BUTYL ACETATE=1): No data available** UPPER FLAMMABILITY LIMIT: 7.5% (V) LOWER FLAMMABILITY LIMIT: 1.1% (V) 225 °C (437 °F) AUTO INGNITION TEMPERATURE: DECOMPOSITION TEMPERATURE: No data available VISCOSITY: 0.51cSt EXPLOSIVE PROPERTIES: No data available **OXIDIZING PROPERTIES:** No data available

OTHER INFORMATION: Bulk Density

5.62lbs/gal.

## 10. STABILITY AND REACTIVITY INFORMATION

<u>CHEMICAL STABILITY</u>: Unstable () Stable (X)

<u>POSSIBILITY OF HAZARDOUS REACTIONS</u>: Vapors may form explosive mixtures with air.

<u>CONDITIONS TO AVOID</u>: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame.

<u>INCOMPATIBLE MATERIALS</u>: Strong oxidants such as caustic soda, liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Copper or copper alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes, Smoke, Carbon Monoxide and Carbon Dioxide.

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

## 11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eyes--> x

#### ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Transient mild irritation including stinging, watering and redness;

Skin> Irritating including redness, burning and drying. The degree of irritation depends on the amount of material applied to skin and the time until it is removed.

Inhalation> Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs.

Ingestion> If swallowed, this material may irritate the mucous membranes of the mouth, throat and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms are burning sensation of mouth and esophagus.

Chronic: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney, liver, skin, respiratory system and central nervous system.

Medical Conditions Aggravated by Exposure> Skin contact may aggravate an existing dermatitis and people with chronic respiratory conditions. Significant exposure may adversely affect people with pre-existing heart disorders making them more susceptible to irregular heartbeats.

#### ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

| Ingredient         | Oral LD50(Rat) Skin LD50(Rabbit) Inhalation LC50 |          |                    |  |
|--------------------|--|----------|--------------------|--|
|                    |  |          |                    |  |
| n-Hexane           | 25000mg/kg                                       | 3.16g/kg | <br>  48000ppm/4hr |  |
| Methylcyclopentane | N.D.   | N.D.     | N.D.               |  |
| Cyclopentane       | N.D.   | N.D,     | N.D.               |  |

MUTAGENIC EFFECTS: No information available.

CARCINOGEN STATUS: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, OSHA or ACGIH.

**REPRODUCTIVE TOXICITY:** No data available.

Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): no data available Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No data availability.

ADDITIONAL DATA: The neurotoxic properties of n-Hexane are potentiated by exposure to methyl ethyl ketone and methyl isobutyl ketone. Prolonged exposure to high concentrations of n-Hexane (>1000ppm)has resulted in decreased sperm count and degenerative changes in the testes of rats but not

of mice.

Cyclohexane can cause eye, skin and mucous membrane irritation. In experimental animals exposed to lethal concentrations by inhalation or oral route, there was generalized vascular damage and severe degenerative changes in the heart, lings, liver kidneys and brain.

#### 12. ECOLOGICAL INFORMATION

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS May be dangerous if it enters water intakes. Notify local health and pollution control officials. Notify operators of nearby water intakes. This mixture contains components that are potentially toxic to freshwater and saltwater ecosystems.

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 2.5 mg/l - 96.0 h Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 3,878.00 mg/l - 48 h Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae)-12,840.00 mg/l - 3 h EC50 - SKELETOMA - 0.30 mg/l - 8 h

WATERFOWL TOXICITY: None available

<u>PERSISTANCE AND DEGRADABILITY</u>: Environmental Fate: This mixture will normally float on water with its lighter components evaporating rapidly. In stagnant or slow flowing waterways, a hydrocarbon layer can cover a large surface area. As a result, this covering layer might limit natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment. This coating action can also be harmful or fatal to plankton, algae, aquatic life, and water birds.

**BIOACCUMULATION:** No data available

BIOLOGICAL OXYGEN DEMAND (BOD): No data available

FOOD CHAIN CONCENTRATION POTENTIAL: None noted

## 13. **DISPOSAL CONSIDERATIONS**

<u>WASTE TREATMENT METHODS:</u> Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

**<u>CONTAMINATED PACKAGING:</u>** Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID number is: D001

If the waste is a spent solvent, the appropriate spent solvent code should be used.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

## 14. TRANSPORT INFORMATION

USDOT Shipping Name-----> Hexanes USDOT Hazard Classification----> 3 (Flammable Liquid) USDOT Label Codes-----> 3 USDOT ID Number-----> UN 1208 USDOT Package Code----> II Emergency Response Guide----> 128 Marine Pollutant----> No

IMDG

UN number: 1208 Class: 3 Packing group: II EMS-No: F-E, S-D Proper shipping name: HEXANES Marine pollutant: No IATA UN number: 1208 Class: 3 Packing group: II Proper shipping name: Hexanes

### 15. **REGULATORY INFORMATION**

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355)- Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65)- Listed; N-Hexane CAS 110-54-3, Cyclohexane CAS 110-82-7

SECTION 311/312: Hazard Categorization (40 CFR 370)- Acute Health, Chronic Health, Fire

<u>CERCLA (Comprehensive Environmental Response, Compensation, and Liability</u> <u>Act)</u>

SECTION 102(A) Hazardous Substances (40 CFR 302.4)- Listed Reportable Quantity - n-Hexane - 5000lb/2270kg, Cyclohexane - 1000lbs, Benzene - 10lbs.

SECTION 101(14) Reportable Quantity: n-Hexane - 5000lb/2270kg. CERCLA Cyclohexane - 1000lbs, Benzene - 10lbs.

| Massachusetts Right To<br>Methylcyclopentane | Know Components<br>CAS-No.96-37-7 |
|--|-----------------------------------|
| n-Hexane                                     | CAS-No.110-54-3                   |
| Cyclohexane                                  | CAS-No.110-82-7                   |
| Cyclopentane                                 | CAS-No.287-92-3                   |
| Pennsylvania Right To K                      | now Components                    |
| Methylcyclopentane                           | CAS-No.96-37-7                    |
| n-Hexane                                     | CAS-No.110-54-3                   |
| Hexanes, isomers -                           |                                   |
| Cyclohexane                                  | CAS-No.110-82-7                   |
| Cyclopentane                                 | CAS-No.287-92-3                   |
| New Jersey Right To Kno                      | ow Components                     |
| Methylcyclopentane                           | CAS-No.96-37-7                    |
| n-Hexane                                     | CAS-No.110-54-3                   |
| Hexanes, isomers -                           |                                   |
| Cyclohexane                                  | CAS-No.110-82-7                   |
| Cyclopentane                                 | CAS-No.287-92-3                   |
|  |                                   |

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### TSCA (Toxic Substance Control Act)

| Methylcyclopentane | CAS-No.96-37-7  |                                   |
|--------------------|-----------------|-----------------------------------|
| n-Hexane           | CAS-No.110-54-3 |                                   |
| Cyclohexane        | CAS-No.110-82-7 |                                   |
| Cyclopentane       | CAS-No.287-92-3 | are listed on the TSCA Inventory. |

#### Section XVI Other Information

HMIS (Hazardous Materials Identification System) Hazard Rating: 4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant

| NFPA RATINGS (SCALE 0-4): | Health=2 | Fire=3 | Reactivity=0 |       |
|---------------------------|----------|--------|--------------|-------|
| HMIS RATINGS(SCALE 0-4):  | Health=2 | Fire=3 | Reactivity=0 | PPE=G |

Date of preparation-----> March 1, 2005 Revision Number-----> 1.6 Revision Date-----> January 26, 2015 Prepared by-----> T.G. Fenstermaker Jr.

#### Acronyms:

| ACGIH  | -   | American Conference of Governmental Industrial Hygenists          |
|--------|-----|---|
| AIHA   | -   | American Industrial Hygiene Association                           |
| ANSI   | -   | American Nation Standards Institute                               |
| API    | -   | American Petroleum Institute                                      |
| CERCLA | ۹ - | Comprehensive Emergency Response, Compensation, and Liability Act |
| DOT    | -   | U.S. Department of Transportation                                 |
| EC-50  | -   | Effective Concentration   |
| EPA    | -   | U.S. Environmental Protection Agency                              |
| HMIS   | -   | Hazardous Materials Information System                            |
| IARC   | -   | International Agency For Research On Cancer                       |
| LD-50  | -   | Lethal Dose   |
| MAK    | -   | Germany Maximum Concentration Values                              |
| MSHA   | -   | Mine Safety and Health Administration                             |
| NFPA   | -   | National Fire Protection Association                              |
| NIOSH  | -   | National Institute of Occupational Safety and Health              |
| NOIC   | -   | Notice of Intended Change (Proposed change to ACGIH TLV)          |
| NTP    | -   | National Toxicology Program                                       |
| OPA    | -   | Oil Pollution Act of 1990   |
| OSHA   | -   | U.S. Occupational Safety & Health Administration                  |
| PEL    | -   | Permissible Exposure Limit (OSHA)                                 |
| RCRA   | -   | Resource Conservation and Recovery Act                            |
| REL    | -   | Recommended Exposure Limit (NIOSH)                                |
| SARA   | -   | Superfund Amendments and Reauthorization Act of 1986 Title III    |
|        |     |   |

| SCBA | - | Self-Contained Breathing Apparatus |
|------|---|------------------------------------|
|------|---|------------------------------------|

- STEL Short-Term Exposure Limit (generally 15 minutes)
- TLV Threshold Limit Value
- TSCA Toxic Substances Control Act
- TWA Time Weighted Average (8hr.)
- WHMIS Canadian Workplace Hazardous Materials Information System

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