SAFETY DATA SHEET

1. Identification

Product Name: Heptanes 195-208

Product Code: 03255

SDS Date: 7/28/2016

Use: Industrial

General Information: 314-644-1300
CHEMTREC: 800-424-9300

2. Hazard(s) identification

GHSClassification

FLAMMABLE LIQUIDS - Category 2
SKIN IRRITATION - Category 2
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ASPIRATION HAZARD - Category 1

Pictogram

Signalword Danger

HazardStatement

Highly flammable liquid and vapor. Causes skin irritation. Suspected of damaging fertility or the unborn child. May be fatal if swallowed and enters airways. May cause drowsiness and dizziness.

Precautionary

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only nonsparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention.Store locked up. Store in a well-ventilated place. Keep cool. Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Hazards not otherwise classified: Not available

3. Composition/information on ingredients

Name	CAS	Concentration
Distillates (petroleum), light distillate hydrotretaing process, low boiling	68410-97-9	>90
Cyclohexane	110-82-7	1-3

4. First-aid measures

General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If Inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
In Case of Skin Contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
In Case of Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
If Swallowed	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed

Acute: Eye contact: no known significant effects or critical hazards. Inhalation: Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Skin contact: Causes skin irritation. Ingestion: Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Over exposure: eye contact: pain or irritation, watering, redness. Inhalation Nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsiouness, reduced fetal weight, increase in fetal deaths, skeletal malformations. Skin Contact: irritation, redness, reduced fetal weight, increase in fetal deaths, skeletal malformations. Ingestion: nausea or vomiting, reduced fetal weight, increase in fetal deaths, skeletal malformations

Indications of any immediate medical attention and special treatment needed

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. Fire-fighting measures

Extinguishing Media	Use dry chemical, CO_2, water spray (fog) or foam. Do not use water jet.
Special Hazards	Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Advice for firefighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Further Information	No data available

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures

NON EMERGENCY PERSONNEL: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
EMERGENCY RESPONDERS: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small Spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large Spill: Stop leak if without risk. Move containers from spill area. Use spark proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the

same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Safe Handling

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Name			CAS
Distillates (petroleum), light distillate hydrotretaing pr			68410-97-9
OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL
Not Available	Not Available	200 ppm	Not Available
Cyclohexane			110-82-7
OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL
300 ppm	Not Available	100 ppm	Not Available

Engineering Control

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Eye/Face Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment

	indicates a higher degree of protection: chemical splash goggles.
Skin Protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body Protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Respiratory Protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Control of Environmental Exposure

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Appearance	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Liquid
Odor	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Characteristic. Hydrocarbon.
Odor Threshold	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
pH	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Melting/Freezing Point	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Initial Boiling Point/Range	Distillates (petroleum), light distillate hydrotretaing process, low boiling	90.556 to 97.778°C (195 to 208°F)
Flash Point	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Closed cup: -8°C (17.6°F) [Tagliabue.]
Evaporation Rate	Distillates (petroleum), light distillate	4.24 (butyl acetate = 1)

	hydrotretaing process, low boiling	
Flammability	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Upper Explosion Limit	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Lower Explosion Limit	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Vapor Pressure	Distillates (petroleum), light distillate hydrotretaing process, low boiling	6 kPa (45 mm Hg) [room temperature]
Vapor Density	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Relative Density	Distillates (petroleum), light distillate hydrotretaing process, low boiling	0.708
Water Solubility	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Insoluble in the following materials: cold water and hot water.
Partition Coefficient	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Auto Ignition Temperature	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Decomposition Temperature	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Not available.
Viscosity	Distillates (petroleum), light distillate hydrotretaing process, low boiling	Kinematic (40°C (104°F)): <0.01 cm2/s (<1 cSt)

10. Stability and reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability	The product is stable.
Possibility of Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to Avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze,

solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials Reactive or incompatible with the following materials: oxidizing materials

Hazardous Decomposition Products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Name	**CAS**
Distillates (petroleum), light distillate hydrotretaing pro	68410-97-9

LD50 Oral Rat 5.17 g/kg

LC50 Inhalation Vapor Rat >5.2 mg/l - 4 h

LD50 Dermal Rabbit > 2000 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization No data available

Germ cell mutagenicity No data available

Carcinogenicity No data available

Reproductive Suspected of famaging the unborn child. Suspected of damaging fertility.

Additional information Aspiration hazard. Can cause central nervous system (CNS) depression. May cause
drowsiness and dizziness.Can cause central nervous system (CNS) depression. May be fatal if swallowed and
enters airways.

Name	CAS
Cyclohexane	110-82-7

LD50 Oral - Rat - 12,705 mg/kg

LC50 Inhalation - Rat - 4 h - 34,000 mg/l

LD50 Dermal - Rabbit - > 2,000 mg/kg

Skin corrosion/irritation Result: No skin irritation

Serious eye damage/eye irritation Result: Mild eye irritation

Respiratory or skin sensitization No data available

Germ cell mutagenicity No data available

Carcinogenicity Not identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA

Reproductive No data available

Additional information Central nervous system depression, Drowsiness, Irritability, Dizziness, Gastrointestinal disturbance, Lung irritation, chest pain, pulmonary edema

12. Ecological information

Name	CAS	Toxicity
Distillates (petroleum), light d	68410-97-9	Algae Acute EC50 1 to 10 mg/l - 72 hours, Acute EC50 1 to 10 mg/l Daphnia 48 hours, Acute LC50 1 to 10 mg/l Fish 96 hours
Cyclohexane	110-82-7	flow-through test LC50 - Pimephales promelas (fathead minnow) - 4.53 mg/l -96 h, Immobilization EC50 - Daphnia magna (Water flea) - 0.9 mg/l - 48 h, EC50 - Pseudokirchneriella subcapitata (green algae) - 3.4 mg/l - 72 h

13. Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

Proper Shipping Name	Petroleum Distillates, n.o.s., RQ (Cyclohexane)
Hazard Class	3
Identification Number	UN1268
Packing Group	II

Label Flammable

15. Regulatory information

Name	**CAS**
Distillates (petroleum), light distillate hydro	68410-97-9
SARA 302/304	No components were identified
SARA 313	No components were identified
CERCLA	No components were identified
SARA 311/312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
PROP 65	No components were identified

This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

Name	**CAS**
Cyclohexane	110-82-7
SARA 302/304	No components were identified
SARA 313	313
CERCLA	RQ=1000 lbs
SARA 311/312	Fire Hazard, Acute Health Hazard
PROP 65	No components were identified

This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

16. Other information, including date of preparation or last revision

SDS Date: 7/28/2016

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