SAFETY DATA SHEET

Heptane Solvent

Section 1. Identification

Product identifier	Heptane Solvent
Product code	98-158
Chemical name	Naphtha (petroleum), hydrotreated light
Other means of identification	Low boiling point hydrogen treated naphtha; Hydrotreated light straight run (petroleum); Naphtha, petroleum, hydrotreated light; Hydrotreated light, straight run, petroleum
Product use	Industrial use
Supplier's details	Patch Rubber Company 100 Patch Rubber Road Weldon, NC 27890 USA Telephone (General): (252) 536-2574
e-mail address of person responsible for this SDS	roa-coa@patchrubber.com
Emergency telephone number (with hours of operation)	CHEMTREC: USA and Canada: 1-800-424-9300 CHEMTREC: Outside of USA and Canada: 001-703-527-3887 (collect calls accepted)

Section 2. Hazard identification

This material is considered hazardous by the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200) and Health Canada Hazardous Product Regulations - WHMIS 2015

Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 2
SKIN IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms

Signal word Danger

Hazard statements

Highly flammable liquid and vapor.
Causes skin irritation.
May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.

Precautionary statements

Prevention

: Wear protective gloves: > 8 hours (breakthrough time): neoprene, butyl rubber, nitrile rubber. Wear eye or face protection. Wear protective clothing.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Use only outdoors or in a well-ventilated area.
Avoid breathing vapor.

Section 2. Hazard identification

Wash hands thoroughly after handling.

Response : IF INHALED: Remove person to fresh air and keep 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.
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical attention.

Storage : Store locked up.
Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : UVCB

Chemical name : Naphtha (petroleum), hydrotreated light

Other means of identification : Low boiling point hydrogen treated naphtha; Hydrotreated light straight run (petroleum); Naphtha, petroleum, hydrotreated light; Hydrotreated light, straight run, petroleum

CAS number/other identifiers

CAS number : 64742-49-0

Product code : 16-471; 472; 97-292; 98-824; 98-860

Ingredient name	% (w/w)	CAS number
Naphtha (petroleum), hydrotreated light	100	64742-49-0
heptane	30 - 45	142-82-5
3-methylhexane	0 - 30	589-34-4
Methylcyclohexane	0 - 20	108-87-2
2-Methylhexane	0 - 15	591-76-4
2,3-dimethylpentane	0 - 5	565-59-3
3-Ethylpentane	0 - 5	617-78-7

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

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.

Section 4. First-aid measures

Inhalation : 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.

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.

Ingestion : 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/effects, acute and delayed

Potential acute health effects

Eye contact : May cause eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Specific treatments : No specific treatment.

Protection of first-aiders : 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.

Section 4. First-aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : 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. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors may form explosive mixtures with air. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
smoke
fumes or vapor

Special protective actions for fire-fighters : 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.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For 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.

For emergency responders : If specialized 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 non-emergency 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.

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. Ensure that the equipment is adequately grounded. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Ensure that the equipment is adequately grounded. 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. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. 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.

Advice on general occupational hygiene : 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.

Conditions for safe storage, including any incompatibilities : 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
United States Occupational Exposure Limits	
Naphtha (petroleum), hydrotreated light	None.
n-Heptane	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 85 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 440 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

3-methylhexane	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes.
Methylcyclohexane	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1610 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 400 ppm 10 hours. TWA: 1600 mg/m³ 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.
2-Methylhexane	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes.
3-Ethylpentane	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes.
2,3-Dimethylpentane	**ACGIH TLV (United States, 4/2014).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes.
Canada Occupational Exposure Limits	
heptane	**CA Alberta Provincial (Canada, 4/2009).** 15 min OEL: 2050 mg/m³ 15 minutes. 8 hrs OEL: 1640 mg/m³ 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes. **CA British Columbia Provincial (Canada, 2/2015).** TWA: 400 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 1/2013).** TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 400 ppm 8 hours. TWAEV: 1640 mg/m³ 8 hours. STEV: 500 ppm 15 minutes. STEV: 2050 mg/m³ 15 minutes.
3-methylhexane	**CA Alberta Provincial (Canada, 4/2009).** 15 min OEL: 2050 mg/m³ 15 minutes. 8 hrs OEL: 1640 mg/m³ 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.
Methylcyclohexane	**CA Alberta Provincial (Canada, 4/2009).**

Section 8. Exposure controls/personal protection

	8 hrs OEL: 400 ppm 8 hours. 8 hrs OEL: 1610 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 2/2015).** TWA: 400 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2013).** TWA: 400 ppm 8 hours. TWA: 1610 mg/m³ 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 400 ppm 8 hours. TWAEV: 1610 mg/m³ 8 hours.
2-Methylhexane	**CA Alberta Provincial (Canada, 4/2009).** 15 min OEL: 2050 mg/m³ 15 minutes. 8 hrs OEL: 1640 mg/m³ 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.
2,3-dimethylpentane	**CA Alberta Provincial (Canada, 4/2009).** 15 min OEL: 2050 mg/m³ 15 minutes. 8 hrs OEL: 1640 mg/m³ 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.
3-Ethylpentane	**CA Alberta Provincial (Canada, 4/2009).** 15 min OEL: 2050 mg/m³ 15 minutes. 8 hrs OEL: 1640 mg/m³ 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.

Appropriate engineering controls : 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.

Environmental exposure controls : 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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Hand 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

Section 8. Exposure controls/personal protection

estimated.

> 8 hours (breakthrough time): neoprene, butyl rubber, nitrile rubber

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 anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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. Ensure an MSHA/NIOSH-approved respirator or equivalent is used (applicable for the United States).

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear.

Odor : Hydrocarbon.

Odor threshold : Not available.

pH : Not available.

Melting point : -140 to -70°C (-220 to -94°F)

Boiling point : 90.5556 to 98.8889°C (195 to 210°F)

Flash point : Closed cup: -9.4444°C (15°F)

Evaporation rate : 4.2 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 6.7%

Vapor pressure : 6 kPa (45 mm Hg) [room temperature]
47.7 kPa (357.48 mm Hg) [50°C]

Vapor density : 3.5 [Air = 1]

Relative density : 0.696 [Water = 1]

Solubility : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : 2.1 to 5

Auto-ignition temperature : 246.1111°C (475°F)

Decomposition temperature : Not available.

Viscosity : Dynamic (room temperature): 0.32 mPa·s (0.32 cP)
Kinematic (room temperature): 0.0055 cm^2/s (0.55 cSt)
Kinematic (40°C (104°F)): 0.0083 cm^2/s (0.83 cSt)

Section 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. Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 10. Stability and reactivity

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. Do not allow vapor to accumulate in low or confined areas.

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

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m³	4 hours
Methylcyclohexane	LD50 Oral	Rat	>3200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
3-methylhexane	Skin - Moderate irritant	Rabbit	-	-	-
Methylcyclohexane	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Moderate irritant	Rabbit	-	-	-
2-Methylhexane	Skin - Moderate irritant	Rabbit	-	-	-
heptane	Skin - Moderate irritant	Rabbit	-	24 hours	-
3-Ethylpentane	Skin - Moderate irritant	Rabbit	-	-	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
3-methylhexane	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Section 11. Toxicological information

Aspiration hazard

Name	Result
Naphtha (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
Heptane	ASPIRATION HAZARD - Category 1
3-Ethylpentane	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Ocular.

Potential acute health effects

Eye contact : May cause eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Repeated or prolonged contact with irritants may cause dermatitis.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
heptane	Acute LC50 375000 µg/l Fresh water	Fish - Oreochromis mossambicus	96 hours
Methylcyclohexane	Acute LC50 5800 µg/l Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Naphtha (petroleum), hydrotreated light	2.1 to 5	10 to 2500	high
heptane	4.66	552	high
Methylcyclohexane	3.61	112	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any federal, state and regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	-	IMDG	IATA
UN number	UN1206	UN1206	-	UN1206	UN1206
UN proper shipping name	HEPTANES	Heptanes	-	HEPTANES	Heptanes
Transport hazard class(es)	3	3	-	3	3
Label					
Packing group	II	II	-	II	II
Environmental hazards	No.	Yes.	-	Marine Pollutant: Yes	No.
Additional information	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3). **Explosive Limit and Limited Quantity Index** 1 **Passenger Carrying Road or Rail Index** 5	This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173. 24a. **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: 5 L **Cargo aircraft** Quantity limitation: 60 L **Special provisions** IB2, T4, TP1	-	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules (EmS)** F-E, S-D	The environmentally hazardous substance mark may appear if required by other transportation regulations. **Passenger and Cargo Aircraft** Quantity limitation: 5 L Packaging instructions: 353 **Cargo Aircraft Only**Quantity limitation: 60 L Packaging instructions: 364 **Limited Quantities - Passenger Aircraft**Quantity limitation: 1 L Packaging instructions: Y341

Section 14. Transport information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: n-Heptane; Methylcyclohexane
TSCA 8(a) CDR Exempt/Partial exemption: All components are listed or exempted.
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Toluene; ethylbenzene; benzene
Clean Water Act (CWA) 311: Toluene; ethylbenzene; benzene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
n-Heptane	30-45	Yes.	No.	No.	Yes.	No.
3-methylhexane	0-30	Yes.	No.	No.	Yes.	No.
Methylcyclohexane	0-20	Yes.	No.	No.	Yes.	No.
2-Methylhexane	0-15	Yes.	No.	No.	Yes.	No.
3-Ethylpentane	0-5	Yes.	No.	No.	Yes.	No.
2,3-Dimethylpentane	0-5	No.	No.	No.	Yes.	No.

United State regulations

Massachusetts : The following components are listed: HEPTANE (N-HEPTANE); 3-METHYLHEXANE; METHYLCYCLOHEXANE; ISOHEPTANE; 2,3-DIMETHYLPENTANE

New York : None of the components are listed.

New Jersey : The following components are listed: n-HEPTANE; HEPTANE; 3-METHYLHEXANE; HEXANE, 3-METHYL-; METHYLCYCLOHEXANE; CYCLOHEXANE, METHYL-; 2, 3-DIMETHYLPENTANE; PENTANE, 2,3-DIMETHYL-

Pennsylvania : The following components are listed: HEPTANE; HEXANE, 3-METHYL-; CYCLOHEXANE, METHYL-; HEXANE, 2-METHYL-; PENTANE, 2,3-DIMETHYL-

Section 15. Regulatory information

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Toluene	No.	Yes.	No.	7000 µg/day (ingestion)
ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
benzene	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)

Canadian lists

Canadian NPRI : The following components are listed: Heptane (all isomers); Heptane (all isomers); Heptane (all isomers); Heptane (all isomers); Heptane (all isomers)

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Inventory list

Australia : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

United States : All components are listed or exempted.

Section 16. Other information

History

Date of printing : 01-15-2016

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Version : 1

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations
HPR = Hazardous Products Regulations

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

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