

# SAFETY DATA SHEET

## Bead Sealer



### Section 1. Identification

**GHS product identifier** : Bead Sealer  
**Product code** : 16-117; 16-118; 16-119; 97-293; 97-446  
**Product use** : Industrial use

**Supplier's details** : Patch Rubber Company  
 100 Patch Rubber Road  
 Weldon, NC 27890 USA  
 T: (252) 536-2574

**e-mail address of person responsible for this SDS** : roa-coa@patchrubber.com

**Emergency telephone number (with hours of operation)** : CHEMTREC: United States and Canada :1-800-424-9300  
 CHEMTREC: Outside United States and Canada: 001-703-527-3887

### Section 2. Hazards 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 CORROSION/IRRITATION - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 78%

**GHS label elements**

**Hazard pictograms**



**Signal word**

: Danger

**Hazard statements**

: Highly flammable liquid and vapor.  
 Causes skin irritation.  
 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.  
 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 non-sparking 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.

## Section 2. Hazards identification

- Response** : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 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 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** : Mixture
- Other means of identification** : Not available.

### CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : 16-117; 16-118; 16-119; 97-293; 97-446

Ingredient name	%	CAS number
Naphtha (petroleum), hydrotreated light	60-100	64742-49-0
n-Heptane	24.89 - 37.33	142-82-5
3-methylhexane	0 -24.89	589-34-4
Methylcyclohexane	0 - 20	108-87-2
2-Methylhexane	0 - 15	591-76-4
3-Ethylpentane	0 - 5	617-78-7
2,3-Dimethylpentane	0 - 4.15	565-59-3
carbon black, respirable other than powder	1 - 5	1333-86-4
Zinc oxide	0.5 - 1.5	1314-13-2
Fuels, diesel, No 2	0.1 - 1.5	68476-34-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**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** : Wash contaminated skin with soap and 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** : 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. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. 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. Irritating to mouth, throat and stomach.

#### 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** : No specific data.

### 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. high concentrations: heartbeat irregularity (arrhythmia)
- 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.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, 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. The vapor/gas is heavier than air and will spread along the ground. 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  
metal oxide/oxides  
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. Absorb with an inert 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. For large spills, dike spilled material or

## Section 6. Accidental release measures

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 ingest. 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
<b>United States Occupational Exposure Limits</b>	
Naphtha (petroleum), hydrotreated light	None.
n-Heptane	<p><b>ACGIH TLV (United States, 4/2014).</b>            TWA: 400 ppm 8 hours.            TWA: 1640 mg/m<sup>3</sup> 8 hours.            STEL: 500 ppm 15 minutes.            STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b>            TWA: 85 ppm 10 hours.            TWA: 350 mg/m<sup>3</sup> 10 hours.            CEIL: 440 ppm 15 minutes.            CEIL: 1800 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 2/2013).</b>            TWA: 500 ppm 8 hours.            TWA: 2000 mg/m<sup>3</sup> 8 hours.</p>
3-methylhexane	<p><b>ACGIH TLV (United States, 4/2014).</b>            TWA: 400 ppm 8 hours.            TWA: 1640 mg/m<sup>3</sup> 8 hours.            STEL: 500 ppm 15 minutes.            STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p>
Methylcyclohexane	<p><b>ACGIH TLV (United States, 4/2014).</b>            TWA: 400 ppm 8 hours.</p>

## Section 8. Exposure controls/personal protection

2-Methylhexane	<p>TWA: 1610 mg/m<sup>3</sup> 8 hours.  <b>NIOSH REL (United States, 10/2013).</b>  TWA: 400 ppm 10 hours.  TWA: 1600 mg/m<sup>3</sup> 10 hours.  <b>OSHA PEL (United States, 2/2013).</b>  TWA: 500 ppm 8 hours.  TWA: 2000 mg/m<sup>3</sup> 8 hours.</p> <p><b>ACGIH TLV (United States, 4/2014).</b>  TWA: 400 ppm 8 hours.  TWA: 1640 mg/m<sup>3</sup> 8 hours.  STEL: 500 ppm 15 minutes.  STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p>
3-Ethylpentane	<p><b>ACGIH TLV (United States, 4/2014).</b>  TWA: 400 ppm 8 hours.  TWA: 1640 mg/m<sup>3</sup> 8 hours.  STEL: 500 ppm 15 minutes.  STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p>
2,3-Dimethylpentane	<p><b>ACGIH TLV (United States, 4/2014).</b>  TWA: 400 ppm 8 hours.  TWA: 1640 mg/m<sup>3</sup> 8 hours.  STEL: 500 ppm 15 minutes.  STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p>
carbon black, respirable other than powder	<p><b>NIOSH REL (United States, 10/2013).</b>  TWA: 3.5 mg/m<sup>3</sup> 10 hours.  TWA: 0.1 mg of PAHs/cm<sup>3</sup> 10 hours.  <b>OSHA PEL (United States, 2/2013).</b>  TWA: 3.5 mg/m<sup>3</sup> 8 hours.  <b>ACGIH TLV (United States, 4/2014).</b>  TWA: 3 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p>
Zinc oxide	<p><b>NIOSH REL (United States, 10/2013).</b>  CEIL: 15 mg/m<sup>3</sup> Form: Dust  TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Dust and fumes  STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Fume  <b>OSHA PEL (United States, 2/2013).</b>  TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Fume  TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction  TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  <b>ACGIH TLV (United States, 4/2014).</b>  TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction  STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Respirable fraction</p>
Fuels, diesel, No 2	<p><b>ACGIH TLV (United States, 4/2014).</b>  <b>Absorbed through skin.</b>  TWA: 100 mg/m<sup>3</sup>, (measured as total hydrocarbons) 8 hours. Form: Inhalable fraction and vapor</p>
<p><b>Canada Occupational Exposure Limits</b></p> <p>heptane</p>	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>  15 min OEL: 2050 mg/m<sup>3</sup> 15 minutes.  8 hrs OEL: 1640 mg/m<sup>3</sup> 8 hours.  8 hrs OEL: 400 ppm 8 hours.  15 min OEL: 500 ppm 15 minutes.</p>

## Section 8. Exposure controls/personal protection

3-methylhexane	<p><b>CA British Columbia Provincial (Canada, 2/2015).</b> TWA: 400 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 1/2013).</b> TWA: 400 ppm 8 hours. TWA: 1640 mg/m<sup>3</sup> 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 400 ppm 8 hours. TWAEV: 1640 mg/m<sup>3</sup> 8 hours. STEV: 500 ppm 15 minutes. STEV: 2050 mg/m<sup>3</sup> 15 minutes.</p> <p><b>CA Alberta Provincial (Canada, 4/2009).</b> 15 min OEL: 2050 mg/m<sup>3</sup> 15 minutes. 8 hrs OEL: 1640 mg/m<sup>3</sup> 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.</p>
Methylcyclohexane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 400 ppm 8 hours. 8 hrs OEL: 1610 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 2/2015).</b> TWA: 400 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 1/2013).</b> TWA: 400 ppm 8 hours. TWA: 1610 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 400 ppm 8 hours. TWAEV: 1610 mg/m<sup>3</sup> 8 hours.</p>
2-Methylhexane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 15 min OEL: 2050 mg/m<sup>3</sup> 15 minutes. 8 hrs OEL: 1640 mg/m<sup>3</sup> 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.</p>
3-Ethylpentane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 15 min OEL: 2050 mg/m<sup>3</sup> 15 minutes. 8 hrs OEL: 1640 mg/m<sup>3</sup> 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.</p>
2,3-dimethylpentane	<p><b>CA Alberta Provincial (Canada, 4/2009).</b> 15 min OEL: 2050 mg/m<sup>3</sup> 15 minutes. 8 hrs OEL: 1640 mg/m<sup>3</sup> 8 hours. 8 hrs OEL: 400 ppm 8 hours. 15 min OEL: 500 ppm 15 minutes.</p>
carbon black, respirable other than powder	<p><b>CA British Columbia Provincial (Canada, 2/2015).</b> TWA: 3 mg/m<sup>3</sup> 8 hours. Form: Inhalable</p> <p><b>CA Ontario Provincial (Canada, 1/2013).</b> TWA: 3 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</p> <p><b>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 3.5 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b> TWAEV: 3.5 mg/m<sup>3</sup> 8 hours.</p>

## Section 8. Exposure controls/personal protection

Zinc oxide

**CA Alberta Provincial (Canada, 4/2009).**

8 hrs OEL: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable

15 min OEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Respirable

**CA British Columbia Provincial (Canada, 2/2015).**

TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable

STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Respirable

**CA Ontario Provincial (Canada, 1/2013).**

TWA: 2 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

STEL: 10 mg/m<sup>3</sup> 15 minutes. Form: Respirable fraction

**CA Quebec Provincial (Canada, 1/2014).**

TWAEV: 5 mg/m<sup>3</sup> 8 hours. Form: Fume

STEV: 10 mg/m<sup>3</sup> 15 minutes. Form: Fume

Fuels, diesel, No 2

**CA Alberta Provincial (Canada, 4/2009).**

8 hrs OEL: 100 mg/m<sup>3</sup>, (as total hydrocarbons) 8 hours.

**CA British Columbia Provincial (Canada, 2/2015). Absorbed through skin.**

TWA: 100 mg/m<sup>3</sup>, (as total hydrocarbons) 8 hours. Form: Inhalable vapour and aerosol

**CA Ontario Provincial (Canada, 1/2013). Absorbed through skin.**

TWA: 100 mg/m<sup>3</sup>, (measured as total hydrocarbons) 8 hours. Form: Total hydrocarbons

### 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



## Section 8. Exposure controls/personal 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 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 to the United States).

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Black.
- Odor** : Hydrocarbon.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 93.3°C (199.9°F)
- Flash point** : Closed cup: -10°C (14°F)
- Evaporation rate** : 4.2 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1%  
Upper: 7%
- Vapor pressure** : 6 kPa (45 mm Hg) [room temperature]
- Vapor density** : 3.5 [Air = 1]
- Relative density** : 0.74
- Solubility** : Insoluble in the following materials: cold water and hot water.
- Solubility in water** : 0 g/l
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : 223°C (433.4°F)
- Decomposition temperature** : Not available.
- Viscosity** : Not available.

## 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.
- 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/m <sup>3</sup>	4 hours
Methylcyclohexane	LD50 Oral	Rat	>3200 mg/kg	-
carbon black, respirable other than powder	LD50 Dermal	Rabbit	>3 g/kg	-
	LD50 Oral	Rat	>15400 mg/kg	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
heptane	Skin - Moderate irritant	Rabbit	-	24 hours	-
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	-	-	-
3-Ethylpentane	Skin - Moderate irritant	Rabbit	-	-	-
2,3-dimethylpentane	Skin - Moderate irritant	Rabbit	-	-	-
Zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

#### Conclusion/Summary

**Skin** : Causes skin irritation.

## Section 11. Toxicological information

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary** : Carbon black is classified by the IARC as a Group 2B carcinogen (possibly carcinogenic to humans). Carbon black is inextricably bound in this mixture and therefore does not present a carcinogenic risk.

### Classification

Product/ingredient name	OSHA	IARC	NTP
carbon black, respirable other than powder	-	2B	-

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
n-Heptane	Category 3	Not applicable.	Narcotic effects
3-methylhexane	Category 3	Not applicable.	Narcotic effects
Methylcyclohexane	Category 3	Not applicable.	Narcotic effects
2-Methylhexane	Category 3	Not applicable.	Narcotic effects
3-Ethylpentane	Category 3	Not applicable.	Narcotic effects
2,3-Dimethylpentane	Category 3	Not applicable.	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Name	Result
n-Heptane	ASPIRATION HAZARD - Category 1
3-methylhexane	ASPIRATION HAZARD - Category 1
Methylcyclohexane	ASPIRATION HAZARD - Category 1
2-Methylhexane	ASPIRATION HAZARD - Category 1
3-Ethylpentane	ASPIRATION HAZARD - Category 1
2,3-Dimethylpentane	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.

## Section 11. Toxicological information

- 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. Irritating to mouth, throat and stomach.

### 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** : No specific data.

### 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.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
n-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
carbon black, respirable other than powder	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Zinc oxide	Acute IC50 1.85 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute IC50 46 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
n-Heptane	4.66	552	high
Methylcyclohexane	3.61	112	low
Zinc oxide	-	60960	high

### Mobility in soil





Soil/water partition coefficient (K<sub>oc</sub>) : 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

	DOT Classification	TDG Classification	-	-	IMDG	IATA
<b>UN number</b>	UN1133	UN1133	-	-	UN1133	UN1133
<b>UN proper shipping name</b>	Adhesives	ADHESIVES	-	-	ADHESIVES	Adhesives
<b>Transport hazard class(es)</b>	3	3	-	-	3	3
<b>Label</b>						
<b>Packing group</b>	II	II	-	-	II	II
<b>Environmental hazards</b>	Yes.	Yes.	-	-	Marine Pollutant: Yes	No.
<b>Additional information</b>	<p>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.</p> <p><b>Limited quantity</b> Yes.</p> <p><b>Packaging instruction Passenger aircraft</b> Quantity limitation: 5 L</p> <p><b>Cargo aircraft</b> Quantity limitation: 60 L</p> <p><b>Special provisions</b> 149, B52, IB2, T4, TP1, TP8</p>	<p>Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).</p> <p>The marine pollutant mark is not required when transported by road or rail.</p> <p><b>Explosive Limit and Limited Quantity Index</b> 5</p> <p><b>Passenger Carrying Road or Rail Index</b> 5</p>	-	-	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Emergency schedules (EmS)</b> F-E, S-D</p>	<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p><b>Passenger and Cargo Aircraft</b> Quantity limitation: 5 L Packaging instructions: 353</p> <p><b>Cargo Aircraft Only</b> Quantity limitation: 60 L Packaging instructions: 364</p> <p><b>Limited Quantities - Passenger Aircraft</b> Quantity limitation: 1 L Packaging instructions: Y341</p> <p><b>Special provisions</b> A3</p>

## 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:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 307:** Toluene; ethylbenzene; benzene; Zinc oxide  
**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
Naphtha (petroleum), hydrotreated light	≥60 - <100	Yes.	No.	No.	Yes.	No.
Zinc oxide	≥1 - <3	No.	No.	No.	Yes.	No.
heptane	≥25 - <50	Yes.	No.	No.	Yes.	No.
3-methylhexane	≥25 - <50	Yes.	No.	No.	Yes.	No.
Methylcyclohexane	≥10 - <25	Yes.	No.	No.	Yes.	No.
2-Methylhexane	≥10 - <25	Yes.	No.	No.	Yes.	No.
3-Ethylpentane	≥5 - <10	Yes.	No.	No.	Yes.	No.
2,3-dimethylpentane	≥5 - <10	No.	No.	No.	Yes.	No.
carbon black, respirable other than powder	≥5 - <10	No.	No.	No.	No.	Yes.
Fuels, diesel, No 2	≥1 - <3	Yes.	No.	No.	No.	Yes.

### SARA 313

## Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	Zinc oxide	1314-13-2	≥1 - <3
Supplier notification	Zinc oxide	1314-13-2	≥1 - <3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : The following components are listed: HEPTANE (N-HEPTANE); 3-METHYLHEXANE; METHYLCYCLOHEXANE; ISOHEPTANE; 2,3-DIMETHYLPENTANE; ZINC OXIDE FUME; CARBON BLACK
- 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-; ZINC OXIDE; CARBON BLACK
- Pennsylvania** : The following components are listed: HEPTANE; HEXANE, 3-METHYL-; CYCLOHEXANE, METHYL-; HEXANE, 2-METHYL-; PENTANE, 2,3-DIMETHYL-; ZINC OXIDE (ZNO); CARBON BLACK

### California Prop. 65

**WARNING:** This product contains 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
carbon black, respirable other than powder	Yes.	No.	No.	No.
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); Zinc (and its compounds)
- 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.

#### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.



## Section 15. Regulatory information

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### International lists

#### National inventory

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Turkey</b>	: Not determined.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



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### Procedure used to derive the classification

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

### History

<b>Date of printing</b>	: 01/18/2016
<b>Date of issue/Date of revision</b>	: 01/18/2016
<b>Date of previous issue</b>	: No previous validation.
<b>Version</b>	: 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

### References

: Not available.

✔ Indicates information that has changed from previously issued version.

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