

Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **Fast Dry Self Vulcanizing Cement**
Product Code • 16-450; 16-451; 16-452; 98-854; 98-855

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Tire repair adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Patch Rubber Company
100 Patch Rubber Road
Weldon, NC 27890
United States

Telephone (General) • (252)-536-2574

Responsible Party - EU • Christian Gimenez
Intertek Analytical Services France
France

Telephone (Technical) • 33 (0) 6 07 11 22 15

1.4 Emergency telephone number

Manufacturer • 1-800-424-9300 - CHEMTREC
Manufacturer • +1 703-527-3887 - CHEMTREC - Outside USA & CANADA (collect calls accepted)

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Flammable Liquids 2 - H225
Aspiration 1 - H304
Skin Irritation 2 - H315
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
Hazardous to the aquatic environment Acute 1 - H400
Hazardous to the aquatic environment Chronic 1 - H410

DSD/DPD • Highly Flammable (F)

Irritant (Xi)
Harmful (Xn)
Dangerous to the Environment (N)
R11, R38, R65, R67, R50, R53

2.2 Label Elements

CLP

DANGER



- Hazard statements**
- H225 - Highly flammable liquid and vapour
 - H304 - May be fatal if swallowed and enters airways
 - H315 - Causes skin irritation
 - H336 - May cause drowsiness or dizziness
 - H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention**
- P261 - Avoid breathing dust, fume, gas, mist, vapours and/or spray.
 - P102 - Keep out of reach of children.
 - P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 - P331 - Do NOT induce vomiting.
- Storage/Disposal**
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R11 - Highly flammable.
 - R38 - Irritating to skin.
 - R65 - Harmful: may cause lung damage if swallowed.
 - R67 - Vapours may cause drowsiness and dizziness.
 - R50 - Very toxic to aquatic organisms.
 - R53 - May cause long-term adverse effects in the aquatic environment.
- Safety phrases**
- S2 - Keep out of reach of children.
 - S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S29 - Do not empty into drains.
 - S33 - Take precautionary measures against static discharges.
 - S60 - This material and its container must be disposed of as hazardous waste.
 - S61 - Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.
 - S62 - If swallowed, do not induce vomiting. Seek medical advice immediately and show the container or label.

2.3 Other Hazards

CLP

- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

- According to European Directive 1999/45/EC this preparation is considered dangerous.

UN GHS

According to Third Revised Edition

2.1 Classification of the substance or mixture

UN GHS

- Flammable Liquids 2 - H225
- Aspiration 1 - H304
- Skin Irritation 2 - H315
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Hazardous to the aquatic environment Acute 1 - H400
- Hazardous to the aquatic environment Chronic 1 - H410

2.2 Label elements

UN GHS

DANGER



- Hazard statements**
- H225 - Highly flammable liquid and vapour
 - H315 - Causes skin irritation
 - H336 - May cause drowsiness or dizziness
 - H304 - May be fatal if swallowed and enters airways
 - H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

- Prevention**
- P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - P235 - Keep cool.
 - P243 - Take precautionary measures against static discharge.
 - P240 - Ground and/or bond container and receiving equipment.
 - P242 - Use only non-sparking tools.
 - P241 - Use explosion-proof - electrical, ventilating and/or lighting equipment.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P233 - Keep container tightly closed.
 - P261 - Avoid breathing dust, fume, gas, mist, vapours and/or spray.
 - P280 - Wear protective gloves and eye/face protection , .
 - P285 - In case of inadequate ventilation wear respiratory protection.
 - P264 - Wash thoroughly after handling.
 - P273 - Avoid release to the environment.

- Response**
- P370+P378 - In case of fire: Use appropriate media for extinction.
 - P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 - P362 - Take off contaminated clothing and wash before reuse.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 - P331 - Do NOT induce vomiting.
 - P391 - Collect spillage.

- Storage/Disposal**
- P403+P235 - Store in a well-ventilated place. Keep cool.
 - P405 - Store locked up.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 1994

- Flammable Liquid

Flammable/Combustible Class IB
 Irritant
 Target Organ Effects - Central Nervous System (CNS)

2.2 Label elements

OSHA HCS 1994

- Not required

2.3 Other hazards

OSHA HCS 1994

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
 Other Toxic Effects - D2B

2.2 Label elements

WHMIS



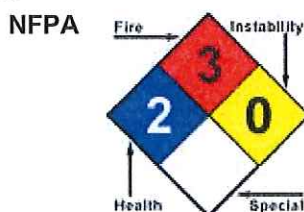
- Flammable Liquids - B2
 Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information



See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008. Material does not meet the criteria of a substance according to United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments

Naphtha (petroleum), hydrotreated light	CAS: 64742-49-0 EC Number: 265-151-9	60% TO 100%	NDA	UN GHS: Skin Irrit 2; STOT SE 3; Aquatic Acute 2 EU DSD/DPD: Annex I: F; R11 Xi; R38 N; R50 R53 Xn; R65 R67 EU CLP: Annex VI: Carc. 1B, H350; Muta. 1B, H340; Asp. Tox. 1, H304	Annex VI carcinogen and mutagen classifications not applicable - contains <0.1% benzene
Heptane	CAS: 142-82-5 EC Number: 205-563-8	30% TO 45%	Inhalation-Rat LC50 • 103 g/m ³ 4 Hour(s)	UN GHS: Asp. Tox. 1, Skin Irrit. 2; STOT SE 2 EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 N; R50-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	NDA
3-Methylhexane	CAS: 589-34-4 EINECS: 209-643-3	0% TO 30%	NDA	UN GHS: None EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 N; R50-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	NDA
Methylcyclohexane	CAS: 108-87-2 EC Number: 203-624-3	0% TO 20%	Ingestion/Oral-Rat LD50 • >3200 mg/kg	UN GHS: Eye Irrit. 2; Skin Irrit. 2; STOT SE 3: Narc.; Aquatic Acute 1 EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 N; R51-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411	NDA
Hexane, 2-methyl-	CAS: 591-76-4 EINECS: 209-730-6	0% TO 15%	NDA	UN GHS: None EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 N; R50-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	NDA
Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	CAS: 35884-05-0 EINECS: 252-774-6	1% TO 5%	NDA	UN GHS: Acute Tox 4 (Oral), Skin Irrit. 3; Eye Irrit. 2B EU DSD/DPD: Self Classified: Xn; R22 EU CLP: Self Classified: Acute Tox 4, H302	NDA
3-Ethylpentane	CAS: 617-78-7 EINECS: 210-529-0	0% TO 5%	NDA	UN GHS: None EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 N; R50-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	NDA

Pentane, 2,3-dimethyl-	CAS:565-59-3 EINECS:209-280-0	0% TO 4.723%	NDA	UN GHS: Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Narc.; Aquatic Acute 1; Aquatic Chronic 1 EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 N; R50-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	NDA
Natural Rubber	NDA	3.81%	NDA	UN GHS: None EU DSD/DPD: None EU CLP: None	NDA
Toluene	CAS:108-88-3 EC Number:203-625-9	< 0.05%	Ingestion/Oral- Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	UN GHS: Repr. 2; Skin Irrit. 3; Eye Irrit. 2B; Aquatic Acute 2; Aquatic Chronic 3 EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3, H336	NDA
Ethylbenzene	CAS:100-41-4 EC Number:202-849-4	< 0.001%	Ingestion/Oral- Rat LD50 • 3500 mg/kg Skin-Rabbit LD50 • 17800 µL/kg Inhalation-Rat LC50 • 55000 mg/m ³ 2 Hour(s)	UN GHS: Flam. Liq. 2; Eye Irrit. 2A; Repr. 2.; Carc. 2; STOT SE 3: Resp. Irrit.; STOT SE 3: Narc. EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xn; R20 EU CLP: Annex VI: Flam. Liq. 2, H225; Acute Tox. 4, H332	NDA
Benzene	CAS:71-43-2 EC Number:200-753-7	< 0.001%	Ingestion/Oral- Rat LD50 • 930 mg/kg Inhalation-Rat LC50 • 10000 ppm 7 Hour(s) Skin-Rabbit LD50 • >9400 µL/kg	UN GHS: Flam Liq. 2; Eye Irrit. 2A; Skin Irrit. 2; Muta. 1B; Carc. 1A; Asp. Tox. 1; STOT RE 1 (Blood, Bone Marrow); Repr. 2; STOT SE 3: Narc.; Aquatic Acute 2; Aquatic Chronic 2 EU DSD/DPD: Annex VI, Table 3.2: F; R11 Xi; R36/38 Carc.Cat.1; R45 Muta.Cat.2; R46 T; R48/23/24/25 Xn; R65 EU CLP: Annex VI: Flam. Liq. 2, H225; Carc. 1A, H350; Muta. 1B, H340; STOT RE 1; H372; Asp. Tox. 1, H304; Eye Irrit. 2, H319; Skin Irrit. 2, H315	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms develop, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. Take off contaminated clothing and

- wash before reuse. If skin irritation occurs: Get medical advice/attention.
- Eye**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- Ingestion**
- Do NOT induce vomiting. If person is drowsy or unconscious and vomiting, place on the left side with head down. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Inhalation of vapors or fumes will cause central nervous system effects with symptoms of dizziness, drowsiness, lethargy, coma and death. Material aspirated into the lungs during ingestion and/or subsequent vomiting will cause lung damage, chemical pneumonitis, pulmonary edema or death. May cause skin irritation. Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- Material if aspirated into the lungs may cause chemical pneumonitis. Treat appropriately.

4.4 Other information

- Call 911 or emergency medical service. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Keep victim warm and quiet.

See Section 2 for Potential Health Effects.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Carbon dioxide (CO₂), water fog, dry chemical or chemical foam.

Unsuitable Extinguishing Media • Avoid the use of streaming water, as this may spread the fire.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Extremely flammable liquid and vapor. Vapors may form explosive mixtures with air. Vapor explosion hazard indoors, outdoors or in sewers. Vapors may travel to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous Combustion Products • Smoke, soot, fumes or vapors, oxides of carbon.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. Use water spray to cool containers exposed to fire. Runoff from fire control may cause pollution. LARGE FIRES: Dike fire-control water for later disposal.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up**Containment/Clean-up Measures**

- Stop leak if you can do it without risk.
All equipment used when handling the product must be grounded.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage**7.1 Precautions for safe handling****Handling**

- Keep away from heat and ignition sources – No Smoking. Product can accumulate static charge by flow or agitation. Bond and ground equipment when transferring from one vessel to another. Empty containers retain product residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks or other ignition sources. They may explode and cause injury or death. Use only with adequate ventilation. Do not enter confined spaces such as tanks or pits without following proper entry procedures.

7.2 Conditions for safe storage, including any incompatibilities**Storage**

- Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Keep container closed when not in use. Keep away from incompatible materials.

Incompatible Materials or Ignition Sources

- Keep away from heat, ignition sources oxidizers and strong acids.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection**8.1 Control parameters**

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	Europe	France
3-Methylhexane (589-34-4)	STELs	500 ppm STEL (listed under Heptane, all isomers)	500 ppm STEL (listed under Heptane, all isomers)	Not established	Not established	Not established
	TWAs	400 ppm TWA (listed under Heptane, all isomers)	400 ppm TWA (listed under Heptane, all isomers)	Not established	Not established	Not established
Hexane, 2-methyl- (591-76-4)	STELs	500 ppm STEL (listed under Heptane, all isomers)	500 ppm STEL (listed under Heptane, all isomers)	Not established	Not established	Not established
	TWAs	400 ppm TWA (listed under Heptane, all isomers)	400 ppm TWA (listed under Heptane, all isomers)	Not established	Not established	Not established

		isomers)	isomers)			
Pentane, 2,3-dimethyl- (565-59-3)	STELs	500 ppm STEL (listed under Heptane, all isomers)	500 ppm STEL (listed under Heptane, all isomers)	Not established	Not established	Not established
	TWAs	400 ppm TWA (listed under Heptane, all isomers)	400 ppm TWA (listed under Heptane, all isomers)	Not established	Not established	Not established
Methylcyclohexane (108-87-2)	TWAs	400 ppm TWA	400 ppm TWA	400 ppm TWAEV; 1610 mg/m3 TWAEV	Not established	400 ppm TWA [VME]; 1600 mg/m3 TWA [VME]
Ethylbenzene (100-41-4)	TWAs	20 ppm TWA	20 ppm TWA	100 ppm TWAEV; 434 mg/m3 TWAEV	Not established	20 ppm TWA [VME] (restrictive limit); 88.4 mg/m3 TWA [VME] (restrictive limit)
	STELs	Not established	Not established	125 ppm STEV; 543 mg/m3 STEV	Not established	100 ppm STEL [VLCT] (restrictive limit); 442 mg/m3 STEL [VLCT] (restrictive limit)
Benzene (71-43-2)	STELs	2.5 ppm STEL	2.5 ppm STEL (applies to workplaces to which the designated substance regulation does not apply); 2.5 ppm STEL (designated substances regulation)	5 ppm STEV; 15.5 mg/m3 STEV	Not established	Not established
	TWAs	0.5 ppm TWA	0.5 ppm TWA (applies to workplaces to which the designated substances regulation does not apply); 0.5 ppm TWA (designated substances regulation)	1 ppm TWAEV; 3 mg/m3 TWAEV	Not established	1 ppm TWA [VME] (restrictive limit); 3.25 mg/m3 TWA [VME] (restrictive limit)
Toluene (108-88-3)	STELs	Not established	Not established	Not established	100 ppm STEL; 384 mg/m3 STEL	100 ppm STEL [VLCT] (restrictive limit); 384 mg/m3 STEL [VLCT] (restrictive limit)
	TWAs	20 ppm TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	50 ppm TWA; 192 mg/m3 TWA	20 ppm TWA [VME] (restrictive limit); 76.8 mg/m3 TWA [VME] (restrictive limit)
Heptane (142-82-5)	STELs	500 ppm STEL (listed under Heptane, all isomers)	500 ppm STEL (listed under Heptane, all isomers)	500 ppm STEV; 2050 mg/m3 STEV	Not established	500 ppm STEL [VLCT] (restrictive limit); 2085 mg/m3 STEL [VLCT] (restrictive limit)
						400 ppm TWA [VME]

	TWAs	400 ppm TWA (listed under Heptane, all isomers)	400 ppm TWA	400 ppm TWAEV; 1640 mg/m3 TWAEV	Not established	(restrictive limit); 1668 mg/m3 TWA [VME] (restrictive limit)
Exposure Limits/Guidelines (Con't.)						
	Result	Germany DFG	Germany TRGS	Italy	NIOSH	OSHA
Methylcyclohexane (108-87-2)	TWAs	Not established	200 ppm TWA AGW (exposure factor 2); 810 mg/m3 TWA AGW (exposure factor 2)	Not established	400 ppm TWA; 1600 mg/m3 TWA	500 ppm TWA; 2000 mg/m3 TWA
	Ceilings	400 ppm Peak; 1620 mg/m3 Peak	Not established	Not established	Not established	Not established
	MAKs	200 ppm TWA MAK; 810 mg/m3 TWA MAK	Not established	Not established	Not established	Not established
Ethylbenzene (100-41-4)	STELs	Not established	Not established	200 ppm STEL; 884 mg/m3 STEL	125 ppm STEL; 545 mg/m3 STEL	Not established
	TWAs	Not established	20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 88 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)	100 ppm TWA; 442 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA
	Ceilings	40 ppm Peak; 176 mg/m3 Peak	Not established	Not established	Not established	Not established
	MAKs	20 ppm TWA MAK; 88 mg/m3 TWA MAK	Not established	Not established	Not established	Not established
Benzene (71-43-2)	TWAs	Not established	Not established	1 ppm TWA; 3.25 mg/m3 TWA	0.1 ppm TWA	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA
	Ceilings	Not established	Not established	Not established	Not established	25 ppm Ceiling
	STELs	Not established	Not established	Not established	1 ppm STEL	5 ppm STEL (see 29 CFR 1910.1028)
	TWAs	Not established	50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 190 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA

Toluene (108-88-3)			AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)			
	Ceilings	200 ppm Peak; 760 mg/m ³ Peak	Not established	Not established	Not established	300 ppm Ceiling
	STELs	Not established	Not established	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established
	MAKs	50 ppm TWA MAK; 190 mg/m ³ TWA MAK	Not established	Not established	Not established	Not established
Heptane (142-82-5)	TWAs	Not established	500 ppm TWA AGW (all isomers, exposure factor 1); 2100 mg/m ³ TWA AGW (all isomers, exposure factor 1)	500 ppm TWA; 2085 mg/m ³ TWA	85 ppm TWA; 350 mg/m ³ TWA	500 ppm TWA; 2000 mg/m ³ TWA
	Ceilings	500 ppm Peak; 2100 mg/m ³ Peak	Not established	Not established	440 ppm Ceiling (15 min); 1800 mg/m ³ Ceiling (15 min)	Not established
	MAKs	500 ppm TWA MAK; 2100 mg/m ³ TWA MAK	Not established	Not established	Not established	Not established

Exposure Control Notations

Italy

- Naphtha (petroleum), hydrotreated light (64742-49-0): **Carcinogens:** (Category 2 Carcinogen)
- Toluene (108-88-3): **Skin:** (skin - potential for cutaneous absorption)
- Benzene (71-43-2): **Carcinogens:** (Category 1 Carcinogen) | **Skin:** (skin - potential for cutaneous absorption)
- Ethylbenzene (100-41-4): **Skin:** (skin - potential for cutaneous absorption)

France

- Toluene (108-88-3): **Reproductive Toxins:** (Reproductive Toxin category 3)
- Benzene (71-43-2): **Carcinogens:** (Carcinogen category 1) | **Mutagens:** (Mutagen category 2)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)
- Ethylbenzene (100-41-4): **Skin:** (skin notation)

Germany DFG

- Heptane (142-82-5): **Pregnancy:** (classification not yet possible)
- Methylcyclohexane (108-87-2): **Pregnancy:** (classification not yet possible)
- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Benzene (71-43-2): **Carcinogens:** (Category 1 (causes cancer in man)) | **Skin:** (skin notation)
- Ethylbenzene (100-41-4): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

8.2 Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable exposure limit values.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced. Refer to European directive 89/686/EEC and relevant CEN standard(s) for more information on personal protective

- equipment.
- Eye/Face**
- Wear safety goggles. Refer to European directive 89/686/EEC and relevant CEN standard(s) for more information on personal protective equipment.
- Hands**
- Wear protective gloves - neoprene, butyl or nitrile rubber with cuffs. Refer to European directive 89/686/EEC and relevant CEN standard(s) for more information on personal protective equipment.
- Skin/Body**
- Where extensive dermal exposure may be expected, either a chemical suit or chemical apron will be needed. Refer to European directive 89/686/EEC and relevant CEN standard(s) for more information on personal protective equipment.
- General Industrial Hygiene Considerations**
- Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.
- Environmental Exposure Controls**
- Follow best practice for site management and disposal of waste. Avoid release to the environment.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

MSHA = Mine Safety and Health Administration

VLCT = Valeurs limites d'exposition à court terme is the short-term exposure limit based on 15-minute exposure.

VME = Valeur Moyenne d'Exposition is the maximum permissible concentration for a work day

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Milky white liquid with hydrocarbon odor.
Color	Milky white.	Odor	Hydrocarbon
Taste	Data lacking	Particulate Type	Not relevant
Particulate Size	Not relevant	Aerosol Type	Not relevant
Odor Threshold	Data lacking	Physical and Chemical Properties	Data lacking
General Properties			
Boiling Point	200 F(93.3333 C)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	Heat of Decomposition	Data lacking
pH	Data lacking	Specific Gravity/Relative Density	0.708 Water=1
Density	5.9 lbs/gal	Bulk Density	Data lacking
Water Solubility	Negligible	Solvent Solubility	Data lacking
Viscosity	50 to 150 Centipoise (cPs, cP) or mPas	Explosive Properties	Classification criteria not met.
Oxidizing Properties:	Classification criteria not met.		
Volatility			
Vapor Pressure	45 mmHg (torr) @ 20 C(68 F)	Vapor Density	3.5 Air=1
Evaporation Rate	4.2 n-Butyl Acetate = 1	VOC (Wt.)	Data lacking
VOC (Vol.)	673 g/L	Volatiles (Wt.)	Data lacking
Volatiles (Vol.)	Data lacking		
Flammability			
Flash Point	15 F(-9.4444 C)	UEL	6.7 %

LEL	1 %	Autoignition	203.8 C(398.84 F)
Burning Time	Data lacking	Flame Height	Data lacking
Flame Extension	Data lacking	Ignition Distance	Data lacking
Flame Duration	Data lacking	Self-Accelerating Decomposition Temperature (SADT)	Data lacking
Heat of Combustion (ΔH_c)	Data lacking	Flammability (solid, gas)	Data lacking
Environmental			
Half-Life	Data lacking	Octanol/Water Partition coefficient	Data lacking
Coefficient of water/oil distribution	Data lacking	Bioaccumulation Factor	Data lacking
Bioconcentration Factor	Data lacking	Biochemical Oxygen Demand BOD/BOD5	Data lacking
Chemical Oxygen Demand	Data lacking	Persistence	Data lacking
Degradation	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- High temperatures, sparks, open flames and live electrical circuits.

10.5 Incompatible materials

- Oxidizing agents, strong acids.

10.6 Hazardous decomposition products

- In case of fire oxides of carbon, hydrocarbons, fumes or vapors, soot and smoke may be produced.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
Aspiration Hazard	EU/CLP • Aspiration 1 UN GHS • Aspiration 1
Carcinogenicity	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met

Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 UN GHS • Skin Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects UN GHS • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met UN GHS • Classification criteria not met

Target Organs

- Central Nervous System (CNS)

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

Potential Health Effects**Inhalation****Acute (Immediate)**

- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death. Intentional concentration and inhalation of vapors of this material may lead to nervous system damage.

Chronic (Delayed)

- No data available.

Skin**Acute (Immediate)**

- Causes skin irritation.

Chronic (Delayed)

- Repeated and prolonged exposure may cause dermatitis.

Eye**Acute (Immediate)**

- Causes eye irritation.

Chronic (Delayed)

- No data available.

Ingestion**Acute (Immediate)**

- Material may be aspirated into lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed)

- No data available.

Mutagenic Effects

- No effects expected.

Carcinogenic Effects

- No effects expected.

Reproductive Effects

- No effects expected.

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been carried out.

12.6 Other adverse effects

- No studies have been found.

12.7 Other Information

- No data is available on the adverse effects of this material on the environment. Aquatic toxicity values are expected to be in the range of 1 - 10 mg/l based upon data from components and similar products.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives, containing a flammable liquid	NDA	II	NDA
TDG	UN1133	ADHESIVES containing flammable liquid	3	II	Marine Pollutant
IMO/IMDG	UN1133	ADHESIVES containing flammable liquid	3	II	Marine Pollutant
IATA/ICAO	UN1133	Adhesives containing flammable liquid	3	II	Acute Aquatic Toxicity, Chronic Aquatic Toxicity

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- This product is provided only in non-bulk containers.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

State Right To Know				
Component	CAS	MA	NJ	PA
3-Ethylpentane	617-78-7	No	No	No

3-Methylhexane	589-34-4	Yes	Yes	Yes
Benzene	71-43-2	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Yes	Yes
Heptane	142-82-5	Yes	Yes	Yes
Hexane, 2-methyl-	591-76-4	Yes	No	Yes
Methylcyclohexane	108-87-2	Yes	Yes	Yes
Naphtha (petroleum), hydrotreated light	64742-49-0	No	No	No
Pentane, 2,3-dimethyl-	565-59-3	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes
Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	No	No	No

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
3-Ethylpentane	617-78-7	No	No	Yes	No	No
3-Methylhexane	589-34-4	No	Yes	Yes	No	Yes
Benzene	71-43-2	Yes	No	Yes	No	Yes
Ethylbenzene	100-41-4	Yes	No	Yes	No	Yes
Heptane	142-82-5	Yes	No	Yes	No	Yes
Hexane, 2-methyl-	591-76-4	Yes	No	Yes	No	Yes
Methylcyclohexane	108-87-2	Yes	No	Yes	No	Yes
Naphtha (petroleum), hydrotreated light	64742-49-0	Yes	No	Yes	No	Yes
Pentane, 2,3-dimethyl-	565-59-3	No	Yes	Yes	No	Yes
Toluene	108-88-3	Yes	No	Yes	No	Yes
Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	No	Yes	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	B2
• 3-Methylhexane	589-34-4	B2
• Hexane, 2-methyl-	591-76-4	B2
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	B2, D2A, D2B
• Heptane	142-82-5	B2, D2B
• Toluene	108-88-3	B2, D2A, D2B
• Benzene	71-43-2	B2, D2A, D2B
• Pentane, 2,3-dimethyl-	565-59-3	B2
• 3-Ethylpentane	617-78-7	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	1 %
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	0.1 %
• Heptane	142-82-5	1 %
• Toluene	108-88-3	1 %
• Benzene	71-43-2	0.1 %
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

Environment**Canada - CEPA - Priority Substances List**

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Benzene	71-43-2	Priority Substance List 1 (substance considered toxic)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Naphtha (petroleum), hydrotreated light	64742-49-0	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Methylcyclohexane	108-87-2	F; R11 Xi; R38 N; R51-53 Xn; R65 R67
• 3-Methylhexane	589-34-4	F; R11 Xi; R38 N; R50-53 Xn; R65 R67
• Hexane, 2-methyl-	591-76-4	F; R11 Xi; R38 N; R50-53 Xn; R65 R67
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	F; R11 Xn; R20
• Heptane	142-82-5	F; R11 Xi; R38 N; R50-53 Xn; R65 R67
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Benzene	71-43-2	F; R11 Xi; R36/38 Carc.Cat.1; R45 Muta.Cat.2; R46 T; R48/23/24/25 Xn; R65
• Pentane, 2,3-dimethyl-	565-59-3	F; R11 Xi; R38 N; R50-53 Xn; R65 R67

• 3-Ethylpentane	617-78-7	F; R11 Xi; R38 N; R50-53 Xn; R65 R67
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Naphtha (petroleum), hydrotreated light	64742-49-0	T R:45-46-65 S:53-45
• Methylcyclohexane	108-87-2	F Xn N R:11-38-51/53-65-67 S:(2)-9-16-33-61-62
• 3-Methylhexane	589-34-4	F Xn N R:11-38-65-67-50/53 S:(2)-9-16-29-33-60-61-62
• Hexane, 2-methyl-	591-76-4	F Xn N R:11-38-65-67-50/53 S:(2)-9-16-29-33-60-61-62
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	F Xn R:11-20 S:(2)-16-24/25-29
• Heptane	142-82-5	F Xn N R:11-38-65-67-50/53 S:(2)-9-16-29-33-60-61-62
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Benzene	71-43-2	F T R:45-46-11-36/38-48/23/24/25-65 S:53-45
• Pentane, 2,3-dimethyl-	565-59-3	F Xn N R:11-38-65-67-50/53 S:(2)-9-16-29-33-60-61-62
• 3-Ethylpentane	617-78-7	F Xn N R:11-38-65-67-50/53 S:(2)-9-16-29-33-60-61-62

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Naphtha (petroleum), hydrotreated light	64742-49-0	P
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	C
• Hexane, 2-methyl-	591-76-4	C
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	C
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	E
• Pentane, 2,3-dimethyl-	565-59-3	C
• 3-Ethylpentane	617-78-7	C

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Naphtha (petroleum), hydrotreated light	64742-49-0	S:53-45
• Methylcyclohexane	108-87-2	S:(2)-9-16-33-61-62
• 3-Methylhexane	589-34-4	S:(2)-9-16-29-33-60-61-62

• Hexane, 2-methyl-	591-76-4	S:(2)-9-16-29-33-60-61-62
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	S:(2)-16-24/25-29
• Heptane	142-82-5	S:(2)-9-16-29-33-60-61-62
• Toluene	108-88-3	S:(2)-36/37-46-62
• Benzene	71-43-2	S:53-45
• Pentane, 2,3-dimethyl-	565-59-3	S:(2)-9-16-29-33-60-61-62
• 3-Ethylpentane	617-78-7	S:(2)-9-16-29-33-60-61-62

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	5 ppm STEL (See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	(listed under Ethyl benzene)
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	(including Benzene from gasoline)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Benzene	71-43-2	10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed

• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	0.1 % de minimis concentration
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
• Benzene	71-43-2	0.1 % de minimis concentration
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Included in waste stream: F039
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
• Benzene	71-43-2	Included in waste streams: F005, F024, F025, F037, F038, F039, K085, K104, K105, K141, K142, K143, K144, K145, K147, K151, K159, K169, K171, K172
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Toxic Characteristic

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	0.5 mg/L regulatory level
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	waste number U220
• Benzene	71-43-2	waste number U019
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	0.057 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Benzene	71-43-2	0.14 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	waste number U220
• Benzene	71-43-2	waste number U019 (Ignitable waste, Toxic waste)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	carcinogen, initial date 6/11/04
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed

• Benzene	71-43-2	carcinogen, initial date 2/27/87
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Benzene	71-43-2	developmental toxicity, initial date 12/26/97
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)
• Benzene	71-43-2	24 µg/day MADL (oral); 49 µg/day MADL (inhalation)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	54 µg/day NSRL (inhalation); 41 µg/day NSRL (oral)
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	6.4 µg/day NSRL (oral); 13 µg/day NSRL (inhalation)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed

• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Benzene	71-43-2	Not Listed
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	male reproductive toxicity, initial date 12/26/97
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Not Listed
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Heptane	142-82-5	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

United States - Rhode Island**Labor****U.S. - Rhode Island - Hazardous Substance List**

• Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Methylcyclohexane	108-87-2	Toxic
• 3-Methylhexane	589-34-4	Not Listed
• Hexane, 2-methyl-	591-76-4	Not Listed
• Zinc Dibutyl Dithiocarbamate/Dibutylamine Complex	35884-05-0	Not Listed
• Ethylbenzene	100-41-4	Toxic; Flammable
• Heptane	142-82-5	Toxic; Flammable
• Toluene	108-88-3	Toxic (skin); Flammable (skin)
• Benzene	71-43-2	Toxic (skin); Flammable (skin); Carcinogen (skin)
• Pentane, 2,3-dimethyl-	565-59-3	Not Listed
• 3-Ethylpentane	617-78-7	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

- 30/April/2014

Preparation Date

- 23/October/2012

Disclaimer/Statement of Liability

- The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Key to abbreviations

NDA = No data available.