

Safety Data Sheet

GenFlex Roofing Systems

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

1.1 Product identifier

Product Name • EPDM Bonding Adhesive and All-Purpose Bonding Adhesive

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

Relevant identified use(s) • Rubber adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

Telephone (General) • genflexmsds@bfdp.com
800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to EU Directive 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
- Skin Irritation 2 - H315
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361d
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- Hazardous to the aquatic environment Chronic 3 - H412

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R38, R48/20, R52, R53, R63, R65, R67

2.2 Label Elements

CLP

DANGER



- Hazard statements**
- H225 - Highly flammable liquid and vapour
 - H315 - Causes skin irritation
 - H319 - Causes serious eye irritation
 - H336 - May cause drowsiness or dizziness
 - H361d - Suspected of damaging the unborn child.
 - H373 - May cause damage to organs -Central Nervous System (CNS)- through prolonged or repeated exposure
 - H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

- Prevention**
- P201 - Obtain special instructions before use.
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 - P233 - Keep container tightly closed.
 - P240 - Ground and/or bond container and receiving equipment.
 - P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 - P242 - Use only non-sparking tools.
 - P243 - Take precautionary measures against static discharge.
 - P264 - Wash thoroughly after handling.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 - P281 - Use personal protective equipment as required.

- 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.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P352 - Wash with plenty of soap and water.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P363 - Wash contaminated clothing before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 - P331 - Do NOT induce vomiting.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.
 - P321 - Specific treatment, see supplemental first aid information.

- Storage/Disposal**
- P405 - Store locked up.
 - P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P235 - Keep cool.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

- Supplemental information**
- 25-35 percent of this product consists of an ingredient of unknown toxicity.

DSD/DPD



- Risk phrases**
- R11 - Highly flammable.
 - R38 - Irritating to skin.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R52 - Harmful to aquatic organisms.
 - R53 - May cause long-term adverse effects in the aquatic environment.
 - R63 - Possible risk of harm to the unborn child.

- Safety phrases**
- R65 - Harmful: may cause lung damage if swallowed.
 - R67 - Vapours may cause drowsiness and dizziness.
 - S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S37 - Wear suitable gloves.

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.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Flammable Liquids 2 - H225
 - Acute Toxicity Oral 4 - H302
 - Skin Irritation 2 - H315
 - Eye Irritation 2A - H319
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
 - Reproductive Toxicity 2 - H361
 - Specific Target Organ Toxicity Repeated Exposure 2 - H373

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Harmful if swallowed - H302
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - May cause drowsiness or dizziness - H336
 - Suspected of damaging fertility or the unborn child. - H361
 - May cause damage to organs through prolonged or repeated exposure - H373

Precautionary statements

- Prevention**
- Obtain special instructions before use. - P201
 - Do not handle until all safety precautions have been read and understood. - P202
 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. - P210
 - Keep container tightly closed. - P233
 - Ground and/or bond container and receiving equipment. - P240
 - Use explosion-proof electrical/ventilating/lighting/equipment. - P241
 - Use only non-sparking tools. - P242
 - Take precautionary measures against static discharge. - P243
 - Wash thoroughly after handling. - P264
 - Do not eat, drink or smoke when using this product. - P270
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response**
- In case of fire: Use appropriate media for extinction. - P370+P378
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician if you feel unwell. - P312
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - Wash with plenty of soap and water. - P352
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - Wash contaminated clothing before reuse. - P363

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 If eye irritation persists: Get medical advice/attention. - P337+P313
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell. - P301+P312
 Rinse mouth. - P330
 Do NOT induce vomiting. - P331
 IF exposed or concerned: Get medical advice/attention. - P308+P313
 Get medical advice/attention if you feel unwell. - P314
 Specific treatment, see supplemental first aid information. - P321

- Storage/Disposal**
- Keep cool. - P235
 - Store in a well-ventilated place. Keep container tightly closed. - P403+P233
 - Store locked up. - P405
 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

Supplemental information

- 25-35 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012

- 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 - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



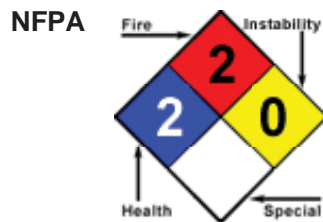
- Flammable Liquids - B2
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

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.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Toluene	CAS: 108-88-3 EC Number: 203-625-9 UN: UN1294	34% TO 44%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: Annex I - F; R11 Repr. Cat. 3; R63 Xn; R48/20-65 Xi; R38; R67 EU CLP: Annex VI - Flam. Liq. 2, H226; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2 * H373; Skin Irrit. 2, H315; STOT SE 3: H336 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; Flam. Liq. 2; Repr. 2; Acute Tox. 4 (oral); STOT SE 3: Narc.; Asp. Tox. 1	NDA
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	CAS: 64741-84-0 EC Number: 265-086-6	25% TO 35%	NDA	EU DSD/DPD: Annex I - Carc. Cat. 2; R45; Muta. Cat. 2; R46; Xn; R65 EU CLP: Annex VI - Carc. 1B; Muta. 1B; Asp. Tox. 1 OSHA HCS 2012: Not Classified - Data Lacking	NDA
Polymers	NDA	11% TO 36%	NDA	EU DSD/DPD: Not Classified - Data Lacking EU CLP: Not Classified - Data Lacking OSHA HCS 2012: Not Classified - Data Lacking	NDA
Polychlorophene	CAS: 9010-98-4	< 12%	Ingestion/Oral-Rat LD50 • >40 g/kg	EU DSD/DPD: Not Classified - Classification criteria not met EU CLP: Not Classified - Classification criteria not met OSHA HCS 2012: Not Classified - Classification criteria not met	NDA
Acetone	CAS: 67-64-1 EC Number: 200-662-2 UN: UN1090	5% TO 10%	Ingestion/Oral-Rat LD50 • 5800 mg/kg Inhalation-Rat LC50 • 50100 mg/m ³	EU DSD/DPD: Annex I - F; R11 Xi; R36; R66; R67 EU CLP: Annex VI - Flam. Liq. 2, H226; Eye Irrit. 2, H319; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3: Resp. Irrit. & Narc.; Repr. 2	NDA
Xylene	CAS: 1330-20-7 EC Number: 215-535-7 UN: UN1307	< 1%	Ingestion/Oral-Rat LD50 • 4300 mg/kg Inhalation-Rat LC50 • 5000 ppm 4 Hour(s) Skin-Rabbit LD50 • >1700 mg/kg	EU DSD/DPD: Annex I - R10 Xn; R20/21 Xi; R38 EU CLP: Annex VI - Flam. Liq. 3, H226; Acute Tox. 4 * H312; Acute Tox. 4 * H332; Skin Irrit. 2, H315 OSHA HCS 2012: Acute Tox. 4 (skin); Eye Irrit. 2A; Skin Irrit. 2, Repr. 2 (inhalation)	NDA
Magnesium oxide	CAS: 1309-48-4 EC Number: 215-171-9	< 1%	NDA	EU DSD/DPD: Self Classified - Xi; R36/37 EU CLP: Self Classified - Eye Irrit. 2, H319; STOT SE 3, H335 OSHA HCS 2012: Eye Irrit. 2; STO SE 3: Resp. Irrit.	NDA
Zinc oxide	CAS: 1314-13-2 EC Number: 215-222-5	< 0.3%	NDA	EU DSD/DPD: Self Classified - N; R50-53 EU CLP: Self Classified - Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Not Classified - Classification criteria not met	NDA

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately if symptoms occur.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- CAUTION: For mixtures containing a high percentage of an alcohol or polar solvent, alcohol-resistant foam may be more effective.
LARGE FIRES: Water spray, fog or alcohol-resistant foam.
SMALL FIRES: Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable Extinguishing Media

- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- Containers may explode when heated.
Vapor explosion hazard indoors, outdoors or in sewers.
HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
Many liquids are lighter than water.
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
Runoff to sewer may create fire or explosion hazard.
Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
Vapors may form explosive mixtures with air.
Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

- Oxides of carbon, oxides of nitrogen, hydrochloric acid.

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- CAUTION: Victim may be a source of contamination. Do not touch or walk through spilled material.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk. 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. All equipment used when handling the product must be grounded. LARGE SPILLS: Dike far ahead of liquid spill for later disposal. LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

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

- Do not use in areas without adequate ventilation. Handle and open container with care. Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store locked up. Keep away from fire. Store in a well-ventilated place. Keep container tightly closed.

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	China	Europe
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (respirable)	10 mg/m3 STEV (fume)	5 mg/m3 STEL	Not established
	TWAs	2 mg/m3 TWA (respirable fraction)	2 mg/m3 TWA (respirable)	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	Not established	Not established

Magnesium oxide (1309-48-4)	STELs	Not established	Not established	Not established	20 mg/m3 STEL (fume)	Not established
	TWAs	10 mg/m3 TWA (inhalable fraction)	10 mg/m3 TWA (inhalable)	10 mg/m3 TWAEV (fume, as Mg)	Not established	Not established
Xylene (1330-20-7)	STELs	150 ppm STEL	150 ppm STEL	150 ppm STEV; 651 mg/m3 STEV	100 mg/m3 STEL	Not established
	TWAs	100 ppm TWA	100 ppm TWA	100 ppm TWAEV; 434 mg/m3 TWAEV	Not established	Not established
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m3 STEV	450 mg/m3 STEL	Not established
	TWAs	500 ppm TWA	500 ppm TWA	500 ppm TWAEV; 1190 mg/m3 TWAEV	Not established	Not established
Toluene (108-88-3)	STELs	Not established	Not established	Not established	100 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL
	TWAs	20 ppm TWA	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	Not established	50 ppm TWA; 192 mg/m3 TWA

Exposure Limits/Guidelines (Con't.)

	Result	Germany DFG	Germany TRGS	NIOSH	OSHA
Zinc oxide (1314-13-2)	TWAs	Not established	Not established	5 mg/m3 TWA (dust and fume)	5 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
	Ceilings	1 mg/m3 Peak (respirable fraction, fume)	Not established	15 mg/m3 Ceiling (dust)	Not established
	STELs	Not established	Not established	10 mg/m3 STEL (fume)	Not established
	MAKs	1 mg/m3 TWA MAK (fume, respirable fraction)	Not established	Not established	Not established
Magnesium oxide (1309-48-4)	TWAs	Not established	Not established	Not established	15 mg/m3 TWA (fume, total particulate)
	MAKs	1.5 mg/m3 TWA MAK (respirable fraction); 4 mg/m3 TWA MAK (inhalable fraction)	Not established	Not established	Not established
Xylene (1330-20-7)	TWAs	Not established	100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m3 TWA AGW (all isomers, exposure factor 2)	Not established	100 ppm TWA; 435 mg/m3 TWA
	Ceilings	200 ppm Peak (all isomers); 880 mg/m3 Peak (all isomers)	Not established	Not established	Not established
	MAKs	100 ppm TWA MAK; 440 mg/m3 TWA MAK	Not established	Not established	Not established
Acetone	TWAs	Not established	500 ppm TWA AGW (exposure factor 2); 1200 mg/m3 TWA AGW (exposure factor 2)	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA

(67-64-1)	Ceilings	1000 ppm Peak; 2400 mg/m ³ Peak	Not established	Not established	Not established
	MAKs	500 ppm TWA MAK; 1200 mg/m ³ TWA MAK	Not established	Not established	Not established
Toluene (108-88-3)	Ceilings	200 ppm Peak; 760 mg/m ³ Peak	Not established	Not established	300 ppm Ceiling
	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/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)	100 ppm TWA; 375 mg/m ³ TWA	200 ppm TWA
	STELs	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

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Always wear a self-contained breathing apparatus or full-face airline respirator when using this chemical.

Eye/Face

- Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Hands

- Wear appropriate chemical resistant gloves (neoprene, nitrile, polyvinyl alcohol (PVA)).

Skin/Body

- Wear appropriate chemical resistant clothing.

Environmental Exposure Controls

- Avoid release to the environment.

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Amber to yellow liquid with strong aromatic .
Color	Amber to yellow.	Odor	Strong aromatic odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	55 to 142 C(131 to 287.6 F)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	Heat of Decomposition	Data lacking
pH	Data lacking	Specific Gravity/Relative Density	0.844 Water=1

Water Solubility	Insoluble	Viscosity	Not relevant
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	9.5 to 185 mmHg (torr) @ 20 C(68 F)	Vapor Density	2.4 Air=1
Evaporation Rate	1.9 to 9.5 Ether = 1	VOC (Vol.)	633 g/L
Volatiles (Vol.)	76.4 %		
Flammability			
Flash Point	-18 C(-0.4 F) TCC (Tagliabue Closed Cup)	UEL	12.8 %
LEL	1 %	Autoignition	Data lacking
Self-Accelerating Decomposition Temperature (SADT)	Data lacking	Flammability (solid, gas)	Data lacking
Environmental			
Octanol/Water Partition coefficient	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

- Avoid flames, sparks, and other sources of ignition. Avoid contact with combustible materials. Avoid contact with incompatible materials.

10.5 Incompatible materials

- Acids, bases, combustible materials, oxidizing materials.

10.6 Hazardous decomposition products

- Thermal decomposition could produce oxides of carbon, oxides of nitrogen, hydrochloric acid.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity 4 (Ingestion/Oral) - ATEmix(oral)= 939.5 mg/mg
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 2
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A

Route(s) of entry/exposure

- Skin, Eye, Ingestion/Oral

Potential Health Effects

Inhalation

Acute (Immediate)

- May be harmful. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- Repeated and prolonged exposure may cause Central Nervous System (CNS) effects.

Skin

Acute (Immediate)

- Causes skin irritation.

Chronic (Delayed)

- No data available.

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- May be harmful.

Chronic (Delayed)

- No data available.

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Section 12 - Ecological Information

12.1 Toxicity

- This material may be toxic to aquatic organisms and cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

- No information available for the product.

12.3 Bioaccumulative potential

- No information available for the product.

12.4 Mobility in Soil

- No information available for the product.

12.5 Results of PBT and vPvB assessment

- No data available

12.6 Other adverse effects

- No studies have been found.

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	3	II	NDA
TDG	UN1133	ADHESIVES	3	II	NDA
IMO/IMDG	UN1133	ADHESIVES	3	II	NDA
ADN	UN1133	ADHESIVES	3	II	NDA
ADR/RID	UN1133	Adhesives	3	II	NDA
IATA/ICAO	UN1133	Adhesives	3	II	NDA

14.6 Special precautions for user

- None known.

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

- Not relevant.

14.8 Other information

- DOT • Toluene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Xylene has a reportable quantity of 1000 lbs (454 kg) as listed in Appendix A to 49 CFR 172.101. Acetone has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information

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

SARA Hazard Classifications

- Acute, Chronic, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
Toluene	108-88-3	Yes	Yes	Yes
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	No	No	No

Polymers	NDA	No	No	No
Polychlorophene	9010-98-4	No	No	No
Acetone	67-64-1	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes
Magnesium oxide	1309-48-4	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Toluene	108-88-3	Yes	No	Yes	Yes	No
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Yes	No	Yes	Yes	No
Polymers	NDA	No	No	No	No	No
Polychlorophene	9010-98-4	Yes	No	Yes	No	No
Acetone	67-64-1	Yes	No	Yes	Yes	No
Xylene	1330-20-7	Yes	No	Yes	Yes	No
Magnesium oxide	1309-48-4	Yes	No	Yes	Yes	No
Zinc oxide	1314-13-2	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Toluene	108-88-3	Yes	Yes	Yes
Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	No	Yes	Yes
Polymers	NDA	No	No	No
Polychlorophene	9010-98-4	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes
Magnesium oxide	1309-48-4	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Australia

Labor

Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - High Volume Industrial Chemicals List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	

• Magnesium oxide	1309-48-4	
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Xn Carc.Cat.2, Muta.Cat.2 R45, R46, R65
• Acetone	67-64-1	F, Xi R11, R36, R66, R67
• Magnesium oxide	1309-48-4	Self classification required (fume)
• Toluene	108-88-3	F, Xn, Xi Repr.Cat.3 R11, R63, R48/20, R65, R38, R67
• Xylene	1330-20-7	Xn, Xi R10, R20/21, R38
• Zinc oxide	1314-13-2	Self classification required (dust and fume); N R50, R53
• Polychlorophene	9010-98-4	Not Listed

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	10 tonne/yr Threshold category 1
• Magnesium oxide	1309-48-4	10 tonne/yr Threshold category 1 (fume); 2000 tonne/yr Threshold category 2b (fume); 60000 MWH Threshold category 2b (fume); 20 MW Threshold category 2b (fume)
• Toluene	108-88-3	10 tonne/yr Threshold category 1
• Xylene	1330-20-7	10 tonne/yr Threshold category 1 (including individual or mixed isomers)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Australia - Priority Existing Chemical Program

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Candidate chemical
• Xylene	1330-20-7	Candidate chemical
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	B2, D2B
• Magnesium oxide	1309-48-4	Uncontrolled product according to WHMIS classification criteria
• Toluene	108-88-3	B2, D2A, D2B
• Xylene	1330-20-7	B2, D2A, D2B

• Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
• Polychlorophene	9010-98-4	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	1 %
• Magnesium oxide	1309-48-4	1 %
• Toluene	108-88-3	1 %
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	1 %
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Xylene	1330-20-7	R10 Xn; R20/21 Xi; R38
• Zinc oxide	1314-13-2	N; R50-53
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	12.5%≤C: Xn; R20/21
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	T R:45-46-65 S:53-45
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Xylene	1330-20-7	Xn R:10-20/21-38 S:(2)-25
• Zinc oxide	1314-13-2	N R:50/53 S:60-61
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	P
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• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	C
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	S:53-45
• Acetone	67-64-1	S:(2)-9-16-26
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	S:(2)-36/37-46-62
• Xylene	1330-20-7	S:(2)-25
• Zinc oxide	1314-13-2	S:60-61
• Polychlorophene	9010-98-4	Not Listed

Mexico**Other****Mexico - Hazard Classifications**

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Hazard Class = 3 PG = II UN1090
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Hazard Class = 3 PG = II UN1294
• Xylene	1330-20-7	Hazard Class = 3 PG = II UN1307; Hazard Class = 3 PG = III UN1307
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Mexico - Regulated Substances

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	UN1090
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	UN1294
• Xylene	1330-20-7	UN1307; UN1307
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed

• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

Environment

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	(isomers and mixtures)
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed

• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	(fume)
• Polychlorophene	9010-98-4	Not Listed

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

• Naphtha, petroleum, solventrefinedlight (Primarily Hexane)	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Magnesium oxide	1309-48-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Polychlorophene	9010-98-4	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16 - Other Information

Last Revision Date

- 22/July/2013

Preparation Date

- 10/April/2012

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Key to abbreviations

NDA = No data available