

Safety Data Sheet

GenFlex Roofing Systems

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier**

Product Name • **Clear Primer and FlexWhite™ Clear Primer**

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

Relevant identified use(s) • 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@bfpd.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 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
 - Reproductive Toxicity 2 - H361d
 - Specific Target Organ Toxicity Repeated Exposure 2 - H373
 - Hazardous to the aquatic environment Chronic 2 - H411
- DSD/DPD**
- Highly Flammable (F)
 - Irritant (Xi)
 - Harmful (Xn)
 - Substances Toxic To Reproduction - Category 3
 - Dangerous to the Environment (N)
 - R11, R38, R48/20, R63, R65, R67, R51/53

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
 - H361d - Suspected of damaging the unborn child.
 - H373 - May cause damage to organs through prolonged or repeated exposure.
 - H411 - Toxic 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.
 - P260 - Do not breathe mist/vapours/spray.
 - 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 and eye/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.
 - P321 - Specific treatment, see supplemental first aid information.
 - 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.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.
 - P391 - Collect spillage.

- Storage/Disposal**
- P233 - Keep container tightly closed.
 - P403+P235 - Store in a well-ventilated place. Keep cool.
 - 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.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R63 - Possible risk of harm to the unborn child.
 - R65 - Harmful: may cause lung damage if swallowed.
 - R67 - Vapours may cause drowsiness and dizziness.
 - R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Safety phrases**
- S9 - Keep container in a well ventilated place
 - S16 - Keep away from sources of ignition - No Smoking.
 - S37 - Wear suitable gloves.

S57 - Use appropriate containment to avoid environmental contamination.

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 material 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
- Aspiration 1 - H304
- Skin Irritation 2 - H315
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements**
- Highly flammable liquid and vapour - H225
 - Harmful if swallowed - H302
 - May be fatal if swallowed and enters airways - H304
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - May cause drowsiness or dizziness - H336
 - May cause respiratory irritation - H335
 - Suspected of damaging fertility or the unborn child. - H361

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
 - Avoid breathing mist/vapours/spray. - P261
 - 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
 - Specific treatment, see supplemental first aid information. - P321
 - Take off contaminated clothing and wash before reuse. - P362
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - 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

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

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).

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
Light aliphatic solvent naphtha	CAS:64742-89-8 EINECS:265-192-2	40% TO 60%	NDA	EU DSD/DPD: Annex VI, Table 3.2 - Xn R65, R67; Xi, R38; N; R51/53 EU CLP: Annex VI, Table 3.1 - Flam. Liq. 2, H225; Skin Irrit. 2; H315; Asp. Tox. 1, H304; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam Liq. 2; Eye Irrit. 2; Skin Irrit. 2; Asp. Tox. 1; STOT SE 3: Narc. & Resp. Irrit.	NDA

Toluene	CAS: 108-88-3 EINECS: 203-625-9	20% TO 40%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: Annex VI, Table 3.2 - F; R11; Repr. 3; R63; Xn; R48/20-65; Xi; R38; R67 EU CLP: Annex VI, Table 3.1 - Flam. Liq. 2, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2*, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox. 4 (Oral); STOT SE 3: Narc.; Asp. Tox. 1; Eye Irrit. 2; Skin Irrit. 2	NDA
Silica, amorphous fumed	CAS: 112945-52-5	< 5%	Ingestion/Oral-Rat LD50 • 3160 mg/kg	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

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. Get medical attention.

Skin

- Remove and isolate contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical 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

- Get medical attention immediately.

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 • Carbon dioxide, sand, extinguishing powder.

Unsuitable Extinguishing Media • Water

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. Vapor explosion hazard indoors, outdoors or in sewers. 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. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

- Carbon oxides, nitrogen oxides, silicon oxides.

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:** Fight fire from maximum distance or use unmanned hose holders or

monitor nozzles.

LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Stop leak if safe to do so.

If leak cannot be stopped, and if there is no risk to the surrounding area, let the fire burn itself out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing.

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

- Keep away from heat, sparks and open flame. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Do not ingest. Take precautionary measures against static charges. Bond and ground all transfer containers and equipment. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. Protect from sunlight.

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	Australia	Belgium	Canada Alberta	Canada British Columbia
Toluene (108-88-3)	STELs	Not established	150 ppm STEL; 574 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL	Not established	Not established
	TWAs	20 ppm TWA	50 ppm TWA; 191 mg/m3 TWA	22 ppm TWA; 77 mg/m3 TWA	50 ppm TWA; 188 mg/m3 TWA	20 ppm TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut
Toluene (108-88-3)	TWAs	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA
	STELs	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	150 ppm STEL; 560 mg/m3 STEL
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Ontario	Canada Quebec	Canada Saskatchewan	Canada Yukon	China
Toluene (108-88-3)	STELs	Not established	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL	100 mg/m3 STEL
	TWAs	20 ppm TWA	50 ppm TWAEV; 188 mg/m3 TWAEV	50 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	50 mg/m3 TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Cyprus	Denmark	Europe	Germany DFG	Germany TRGS
Toluene (108-88-3)	STELs	100 ppm STEL; 384 mg/m3 STEL	Not established	100 ppm STEL; 384 mg/m3 STEL	Not established	Not established
	TWAs	50 ppm TWA; 192 mg/m3 TWA	25 ppm TWA; 94 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA	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 AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)
	Ceilings	Not established	Not established	Not established	200 ppm Peak; 760 mg/m3 Peak	Not established
	MAKs	Not established	Not established	Not established	50 ppm TWA MAK; 190 mg/m3 TWA MAK	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	NIOSH		OSHA		
Toluene (108-88-3)	Ceilings	Not established		300 ppm Ceiling		
	TWAs	100 ppm TWA; 375 mg/m3 TWA		200 ppm TWA		

	STELs	150 ppm STEL; 560 mg/m ³ STEL	Not established
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Exposure Control Notations

Cyprus

- Toluene (108-88-3): **Skin:** (Skin-potential for cutaneous absorption)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)

Germany DFG

- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. 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. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

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

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

TWAEV = Time-Weighted Average Exposure Value

NIOSH = National Institute of Occupational Safety and Health

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

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Translucent to clear liquid with characteristic solvent odor.
Color	Translucent to clear.	Odor	Characteristic solvent.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	185 F(85 C)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Unknown
Specific Gravity/Relative Density	0.75 to 0.81 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	38 mmHg (torr)	Vapor Density	3.6 Air=1

Evaporation Rate	3.5 n-Butyl Acetate = 1	Volatiles (Vol.)	85 %
Flammability			
Flash Point	18 C(64.4 F)	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Heat of Combustion (ΔH_c)	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, or other sources of ignition.

10.5 Incompatible materials

- Strong oxidizing agents.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Toluene (20% TO 40%)	108-88-3	Acute Toxicity: orl-rat LD50:636 mg/kg; ihl-rat LC50:49 gm/m3/4H; skn-rbt LD50:14100 uL/kg; Irritation: eye-rbt 2 mg/24H SEV; skn-rbt 500 mg MOD; Mutagen: sce-hmn-ihl 252 ug/L/19Y; Reproductive: ihl-rat TCLo:2000 ppm (multigeneration)
Silica, amorphous fumed (< 5%)	112945-52-5	Acute Toxicity: orl-rat LD50:3160 mg/kg; Multi-dose Toxicity: ihl-rat TCLo:154 mg/m3/6H/4W-l

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral 4 - ATE mix (oral) = 691.209245 mg/kg
Aspiration Hazard	EU/CLP • Aspiration 1 OSHA HCS 2012 • Aspiration 1
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 • Classification criteria not met
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; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
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 • Classification criteria not met OSHA HCS 2012 • Eye Irritation 2

Target Organs

- Central Nervous System (CNS)

Route(s) of entry/exposure

- Inhalation, Skin, Eye, Ingestion

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

- May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)

- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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)**

- Harmful if swallowed. Material may be aspirated into the 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.

Other**Chronic (Delayed)**

- Chronic exposure to hexane may produce peripheral neuropathy (motor sensory) and CNS abnormalities.

Reproductive Effects

- May cause adverse reproductive effects - such as birth defects, miscarriages or infertility based on animal data.

Key to abbreviations

LC = Lethal Concentration

SEV = Severe

LD = Lethal Dose

TC = Toxic Concentration

MOD = Moderate

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

- 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

- No PBT and vPvB assessment has been conducted.

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, containing a flammable liquid	3	II	NDA
TDG	UN1133	ADHESIVES containing flammable liquid	3	II	Potential Marine Pollutant
IMO/IMDG	UN1133	ADHESIVES, containing a flammable liquid	3	II	NDA
ADN	UN1133	ADHESIVES containing flammable liquid	3	II	NDA
ADR/RID	UN1133	ADHESIVES, containing a flammable liquid	3	II	NDA
IATA/ICAO	UN1133	Adhesives, containing a flammable liquid	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.

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
Light aliphatic solvent naphtha	64742-89-8	No	No	No
Silica, amorphous fumed	112945-52-5	No	No	No
Toluene	108-88-3	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Light aliphatic solvent naphtha	64742-89-8	Yes	No	Yes	Yes	No
Silica, amorphous fumed	112945-52-5	Yes	No	Yes	No	No
Toluene	108-88-3	Yes	No	Yes	Yes	No

Inventory (Con't.)				
Component	CAS	Japan ENCS	Korea KECL	TSCA
Light aliphatic solvent naphtha	64742-89-8	No	Yes	Yes
Silica, amorphous fumed	112945-52-5	Yes	Yes	No
Toluene	108-88-3	Yes	Yes	Yes

Australia

Labor

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Australia - High Volume Industrial Chemicals List

• Toluene	108-88-3	
• Light aliphatic solvent naphtha	64742-89-8	
• Silica, amorphous fumed	112945-52-5	Not Listed

Australia - List of Designated Hazardous Substances - Classification

• Toluene	108-88-3	F, Xn, Xi Repr.Cat.3 R11, R63, R48/20, R65, R38, R67
• Light aliphatic solvent naphtha	64742-89-8	Xn Carc.Cat.2, Muta.Cat.2 R45, R46, R65
• Silica, amorphous fumed	112945-52-5	Self classification required (respirable dust)

Environment

Australia - National Pollutant Inventory (NPI) Substance List

• Toluene	108-88-3	10 tonne/yr Threshold category 1
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• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Australia - Ozone Protection Act - Scheduled Substances

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Australia - Priority Existing Chemical Program

• Toluene	108-88-3	Candidate chemical
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Belgium**Labor****Belgium - Substances and Preparations - Carcinogens and Mutagens**

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Bulgaria**Environment****Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour**

• Toluene	108-88-3	0.25 mg/m3 MAHCL
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Toluene	108-88-3	B2, D2A, D2B
• Light aliphatic solvent naphtha	64742-89-8	B2
• Silica, amorphous fumed	112945-52-5	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Toluene	108-88-3	1 %
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Priority Substance List 1 (substance not considered)
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• Light aliphatic solvent naphtha	64742-89-8	toxic) Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

China

Other

China - Annex I & II - Controlled Chemicals Lists

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Toluene	108-88-3	Solvents in a wide range of products including paints, coatings and cooling lubricants (listed under Organic solvents)
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Europe

Other

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

• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Light aliphatic solvent naphtha	64742-89-8	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Light aliphatic solvent naphtha	64742-89-8	T R:45-46-65 S:53-45
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	P
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	S:(2)-36/37-46-62
• Light aliphatic solvent naphtha	64742-89-8	S:53-45
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany**Labor****Germany - Immission Control - Qualifying Quantities for Major Accident Prevention**

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Environment**Germany - TA Luft - Types and Classes**

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Toluene	108-88-3	ID Number 194, hazard class 2 - hazard to waters
• Light aliphatic solvent naphtha	64742-89-8	ID Number 27, hazard class 1 - low hazard to waters
• Silica, amorphous fumed	112945-52-5	Not Listed

Germany - Water Classification (VwVwS) - Annex 3

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed

• Silica, amorphous fumed	112945-52-5	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	1.0 % de minimis concentration
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	waste number U220
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	waste number U220
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

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

• Toluene	108-88-3	Not Listed
• Light aliphatic solvent naphtha	64742-89-8	Not Listed
• Silica, amorphous fumed	112945-52-5	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16 - Other Information

Last Revision Date

- 11/March/2014

Preparation Date

- 10/April/2012

Disclaimer/Statement of Liability

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Key to abbreviations

NDA = No data available
