

Safety Data Sheet

Firestone Building Products Company

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

1.1 Product identifier

Product Name • **Bonding Adhesive E**

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

Relevant identified use(s) • Construction

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company
200 4th Avenue S
Nashville, TN 37201-2208
United States

genflexmsds@bfdp.com

Telephone (General) • 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
- Eye Irritation 2 - H319
- Respiratory Sensitization 1 - H334
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Carcinogenicity 1B - H350
- Reproductive Toxicity 2 - H361d
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- EUH066

DSD/DPD

- Highly Flammable (F)
- Irritant (Xi)
- Carcinogenic Substances - Category 2
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- R11, R38, R42, R45, R48/20, R63, R65, R66, R67

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
 - H319 - Causes serious eye irritation
 - H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - H336 - May cause drowsiness or dizziness
 - H350 - May cause cancer.
 - H361d - Suspected of damaging the unborn child.
 - H373 - May cause damage to organs through prolonged or repeated exposure.
 - EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary statements

- Prevention •**
- P285 - In case of inadequate ventilation wear respiratory protection.
 - 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.
 - 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.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - P321 - Specific treatment, see supplemental first aid information.
 - P362 - Take off contaminated clothing and wash 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.
- Storage/Disposal •**
- P235 - Keep cool.
 - P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - 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.
 - R42 - May cause sensitisation by inhalation.
 - R45 - May cause cancer.
 - 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.

R66 - Repeated exposure may cause skin dryness or cracking.

R67 - Vapours may cause drowsiness and dizziness.

- Safety phrases** • S9 - Keep container in a well ventilated place
 S16 - Keep away from sources of ignition - No Smoking.
 S22 - Do not breathe dust.
 S23 - Do not breathe gas/fumes/vapour/spray.
 S37 - Wear suitable gloves.
 S53 - Avoid exposure - obtain special instructions before use.

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
 - Acute Toxicity Oral 4
 - Aspiration 1
 - Skin Irritation 2
 - Eye Irritation 2A
 - Respiratory Sensitization 1
 - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
 - Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
 - Carcinogenicity 1B
 - Reproductive Toxicity 2
 - Specific Target Organ Toxicity Repeated Exposure 2

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • Highly flammable liquid and vapour
 Harmful if swallowed
 May be fatal if swallowed and enters airways
 Causes skin irritation
 Causes serious eye irritation
 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause respiratory irritation
 May cause drowsiness or dizziness
 May cause cancer.
 Suspected of damaging fertility or the unborn child.
 May cause damage to organs - Central Nervous System through prolonged or repeated exposure

Precautionary statements

- Prevention** • Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 Keep container tightly closed.
 Ground and/or bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Do not breathe mist/vapours/spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 In case of inadequate ventilation wear respiratory protection.

- Response**
- In case of fire: Use appropriate media for extinction.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - If skin irritation occurs: Get medical advice/attention.
 - Specific treatment, see supplemental first aid information.
 - Take off contaminated clothing and wash before reuse.
 - 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.
 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 - Rinse mouth.
 - Do NOT induce vomiting.
 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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

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



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).

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	30% TO 40%	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: EU CLP, Annex VI, Table 3.2: F, R11; Repr.Cat.3, R63; Xn, R48/20, R65; Xi, R38; 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 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
Solvent-refined light petroleum naphtha	CAS:64741-84-0 EC Number:265-086-6	25% TO 30%	NDA	EU DSD/DPD: Annex I - Carc. 2, R45; Xn R65 EU CLP: Annex VI - Asp. Tox. 1, H304; Carc. 1B, H350 OSHA HCS 2012: Asp. Tox. 1; Carc. 1B	NDA
Acetone	CAS:67-64-1 EC Number:200-662-2	10% TO 20%	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, H225; 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

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

- Rinse skin with rubbing alcohol first, followed immediately by washing affected area with soap and water. 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 • Foam, carbon dioxide, dry chemical, and vaporizing liquid type extinguishing agents.

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 • HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Runoff to sewer may create fire or explosion hazard.

Hazardous Combustion Products • Oxides of carbon and nitrogen, trace of hydrochloric acid and irritating fumes.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Cool fire exposed containers with water. Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Do not touch or walk through spilled material. Wear appropriate personal protective equipment. Do not breathe mist/vapours/spray. Avoid contact with skin and eyes.

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 and ignition sources. Do not use in areas without adequate ventilation. Handle and open container with care. Take precautionary measures against static charges. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly. Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage

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

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	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Acetone (67-64-1)	STELs	750 ppm STEL	1000 ppm STEL; 2420 mg/m ³ STEL	750 ppm STEL; 1800 mg/m ³ STEL	500 ppm STEL	750 ppm STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1210 mg/m ³ TWA	500 ppm TWA; 1200 mg/m ³ TWA	250 ppm TWA	500 ppm TWA
Toluene (108-88-3)	STELs	Not established	100 ppm STEL; 384 mg/m ³ STEL	Not established	Not established	Not established
	TWAs	20 ppm TWA	22 ppm TWA; 77 mg/m ³ TWA	50 ppm TWA; 188 mg/m ³ TWA	20 ppm TWA	20 ppm TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario
Acetone (67-64-1)	STELs	750 ppm STEL; 1782 mg/m ³ STEL	1250 ppm STEL; 2970 mg/m ³ STEL	750 ppm STEL	1250 ppm STEL; 2970 mg/m ³ STEL	750 ppm STEL
	TWAs	500 ppm TWA; 1188 mg/m ³ TWA	1000 ppm TWA; 2370 mg/m ³ TWA	500 ppm TWA	1000 ppm TWA; 2370 mg/m ³ TWA	500 ppm TWA
Toluene (108-88-3)	TWAs	50 ppm TWA; 188 mg/m ³ TWA	100 ppm TWA; 375 mg/m ³ TWA	20 ppm TWA	100 ppm TWA; 375 mg/m ³ TWA	20 ppm TWA
	STELs	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	Denmark	Europe
Acetone (67-64-1)	TWAs	500 ppm TWAEV; 1190 mg/m ³ TWAEV	500 ppm TWA	1000 ppm TWA; 2400 mg/m ³ TWA	250 ppm TWA; 600 mg/m ³ TWA	Not established
	STELs	1000 ppm STEV; 2380 mg/m ³ STEV	Not established	1250 ppm STEL; 3000 mg/m ³ STEL	Not established	Not established
Toluene (108-88-3)	STELs	Not established	Not established	150 ppm STEL; 560 mg/m ³ STEL	Not established	100 ppm STEL; 384 mg/m ³ STEL
	TWAs	50 ppm TWAEV; 188 mg/m ³ TWAEV	50 ppm TWA	100 ppm TWA; 375 mg/m ³ TWA	25 ppm TWA; 94 mg/m ³ TWA	50 ppm TWA; 192 mg/m ³ TWA

Exposure Limits/Guidelines (Con't.)					
	Result	Germany DFG	Germany TRGS	NIOSH	OSHA
Acetone (67-64-1)	TWAs	Not established	500 ppm TWA AGW (exposure factor 2); 1200 mg/m ³ TWA AGW (exposure factor 2)	250 ppm TWA; 590 mg/m ³ TWA	1000 ppm TWA; 2400 mg/m ³ TWA
	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

Exposure Control Notations

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)
- Acetone (67-64-1): **Pregnancy:** (classification not yet possible)

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

- 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.

Eye/Face

- Safety glasses with side shields should be worn at a minimum.

Hands

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

Skin/Body

- Wear appropriate chemical resistant clothing.

General Industrial Hygiene Considerations

- Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Wash contaminated clothing before reuse.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

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

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

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties**9.1 Information on Basic Physical and Chemical Properties**

Material Description			
Physical Form	Liquid	Appearance/Description	Yellow liquid with characteristic odor.
Color	Yellow	Odor	Characteristic odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	208 °F(97.7778 °C)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	Heat of Decomposition	Data lacking
pH	Data lacking	Specific Gravity/Relative Density	= 0.837 Water=1
Water Solubility	Negligible < 0.1 %	Viscosity	Data lacking
Explosive Properties	Not explosive.	Oxidizing Properties:	Not an oxidizer.
Volatility			
Vapor Pressure	175 mmHg (torr) @ 68 °F(20 °C)	Vapor Density	Data lacking
Evaporation Rate	Data lacking	VOC (Wt.)	4.24 lbs/gal
VOC (Vol.)	Data lacking	Volatiles (Wt.)	79 %
Flammability			
Flash Point	0 °F(-17.7778 °C)	UEL	13 %
LEL	1.2 %	Autoignition	Data lacking
Flammability (solid, gas)	Flammable Liquid.		
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, alkalies, strong oxidizers.

10.6 Hazardous decomposition products

- Oxides of carbon, nitrogen and hydrocarbons, hydrogen chloride (thermal degradation products).

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Toluene (30% TO 40%)	108-88-3	Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Reproductive: Inhalation-Rat TLo • 800 mg/m ³ 6 Hour(s)(14-20D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Effects on Newborn:Behavioral</i>
Acetone (10% TO 20%)	67-64-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; Inhalation-Rat LC50 • 50100 mg/m ³ ; Irritation: Eye-Rabbit • 20 mg • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Reproductive: Inhalation-Rat TLo • 30 mg/m ³ (1-13D preg); <i>Reproductive Effects:Effects on Fertility:Pre-implantation mortality; Reproductive Effects:Effects on Fertility:Post-implantation mortality; Reproductive Effects:Effects on Embryo or Fetus:Fetal death</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Acute Toxicity - Oral 4
Skin corrosion/Irritation	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Respiratory Sensitizer 1 OSHA HCS 2012 • Respiratory Sensitizer 1
Aspiration Hazard	EU/CLP • Aspiration 1 OSHA HCS 2012 • Aspiration 1
Carcinogenicity	EU/CLP • Carcinogenicity 1B OSHA HCS 2012 • Carcinogenicity 1B
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Toxic to Reproduction 2 OSHA HCS 2012 • Toxic to Reproduction 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; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP • Specific Target Organ Toxicity Repeated Exposure 2 OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 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 cause drowsiness or dizziness.
- Chronic (Delayed)** • May cause allergy or asthma symptoms or breathing difficulties if inhaled. Repeated and prolonged exposure may cause Central Nervous System (CNS) effects. Toluene may also cause sensitization to epinephrine or other adrenalin like agents. Toluene abuse or sniffing may cause liver, kidney and central nervous system damage.
- Skin**
- Acute (Immediate)** • Causes skin irritation.
- Chronic (Delayed)** • Repeated exposure may cause skin dryness or cracking.
- 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)** • May cause damage to Central Nervous System (CNS) through prolonged or repeated exposure.
- Carcinogenic Effects** • May cause cancer.
- Reproductive Effects** • Repeated or prolonged exposure to toluene causes reproductive effects.

Key to abbreviations

LC = Lethal Concentration	MOD = Moderate
LD = Lethal Dose	SEV = Severe
MLD = Mild	TC = Toxic Concentration

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	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 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. 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
Acetone	67-64-1	Yes	Yes	Yes
Solvent-refined light petroleum naphtha	64741-84-0	No	No	No
Toluene	108-88-3	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Acetone	67-64-1	Yes	No	Yes	No	Yes
Solvent-refined light petroleum naphtha	64741-84-0	Yes	No	Yes	No	Yes
Toluene	108-88-3	Yes	No	Yes	No	Yes

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	B2, D2B
• Toluene	108-88-3	B2, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	1 %
• Toluene	108-88-3	1 %

Environment

Canada - CEPA - Priority Substances List

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Solvents in a wide range of products including paints, coatings and cooling lubricants

Europe

Other

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

• Solvent-refined light petroleum naphtha	64741-84-0	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

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

• Solvent-refined light petroleum naphtha	64741-84-0	T R:45-46-65 S:53-45
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• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations		
• Solvent-refined light petroleum naphtha	64741-84-0	P
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
• Solvent-refined light petroleum naphtha	64741-84-0	S:53-45
• Acetone	67-64-1	S:(2)-9-16-26
• Toluene	108-88-3	S:(2)-36/37-46-62

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
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• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	ID Number 6, hazard class 1 - low hazard to waters
• Toluene	108-88-3	ID Number 194, hazard class 2 - hazard to waters
Germany - Water Classification (VwVwS) - Annex 3		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

United States

Labor		
U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - OSHA - Specifically Regulated Chemicals		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

Environment		
U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities		

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed
U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Included in waste stream: F039
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	waste number U220
U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	
U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards		
• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)
• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring		

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	waste number U002 (Ignitable waste)
• Toluene	108-88-3	waste number U220

United States - California

Environment

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

United States - Pennsylvania

Labor

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	
• Toluene	108-88-3	

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

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
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• Acetone	67-64-1	Not Listed
• Toluene	108-88-3	Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

• Solvent-refined light petroleum naphtha	64741-84-0	Not Listed
• Acetone	67-64-1	Toxic; Flammable
• Toluene	108-88-3	Toxic (skin); Flammable (skin)

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

Revision Date	<ul style="list-style-type: none"> • 01/March/2018
Preparation Date	<ul style="list-style-type: none"> • 04/January/2012
Other Information	<ul style="list-style-type: none"> • Product name modification; Updated mailing address.
Disclaimer/Statement of Liability	<ul style="list-style-type: none"> • The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations

NDA = No data available