

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 • **Spray Adhesive/Primer 7877**

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
250 West 96th Street
Indianapolis, IN 46260
United States

firestonemsds@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 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 Aerosols 1 - H222
- Skin Irritation 2 - H315
- Eye Irritation 2 - H319
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
- Reproductive Toxicity 2 - H361fd
- Specific Target Organ Toxicity Repeated Exposure 2 - H373
- Hazardous to the aquatic environment Chronic 2 - H411

DSD/DPD

- Extremely Flammable (F+)
- Irritant (Xi)
- Harmful (Xn)
- Substances Toxic To Reproduction - Category 3
- Dangerous to the Environment (N)
- R12, R36/38, R48/20, R62, R63, R67, R51, R53

2.2 Label Elements

CLP

DANGER



- Hazard statements**
- H222 - Extremely flammable aerosol
 - H315 - Causes skin irritation
 - H319 - Causes serious eye irritation
 - H336 - May cause drowsiness or dizziness
 - H361fd - Suspected of damaging fertility. 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.
 - P211 - Do not spray on an open flame or other ignition source.
 - P251 - Pressurized container: Do not pierce or burn, even after use.
 - 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/protective clothing/eye protection/face protection.
 - P281 - Use personal protective equipment as required.

- Response**
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 - P321 - Specific treatment, see supplemental first aid information.
 - P332+P313 - If skin irritation occurs: Get medical advice/attention.
 - 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.
 - P308+P313 - IF exposed or concerned: Get medical advice/attention.
 - P314 - Get medical advice/attention if you feel unwell.
 - P391 - Collect spillage.

- Storage/Disposal**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R12 - Extremely flammable.
 - R36/38 - Irritating to eyes and skin.
 - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 - R62 - Possible risk of impaired fertility.
 - R63 - Possible risk of harm to the unborn child.
 - R67 - Vapours may cause drowsiness and dizziness.
 - R51 - Toxic to aquatic organisms.
 - R53 - 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.
 - S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - 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 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 Aerosols 1 - H222
 - Skin Irritation 2 - H315
 - Eye Irritation 2A - 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
 - Specific Target Organ Toxicity Repeated Exposure 2 - H373

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements ●**
- Extremely flammable aerosol - H222
 - Causes skin irritation - H315
 - Causes serious eye irritation - H319
 - May cause respiratory irritation - H335
 - May cause drowsiness or dizziness - H336
 - Suspected of damaging fertility or the unborn child. - H361
 - May cause damage to organs -Nervous System, Central Nervous System (CNS) 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
 - Do not spray on an open flame or other ignition source. - P211
 - Pressurized container: Do not pierce or burn, even after use. - P251
 - Do not breathe mist/vapours/spray. - P260
 - Wash thoroughly after handling. - P264
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response ●**
- 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: Wash with plenty of soap and water. - P302+P352
 - Specific treatment, see supplemental first aid information. - P321
 - If skin irritation occurs: Get medical advice/attention. - P332+P313
 - Take off contaminated clothing and wash before reuse. - P362
 - 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
 - Get medical advice/attention if you feel unwell. - P314
 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. - P309+P311
- Storage/Disposal ●**
- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. - P410+P412
 - 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 Aerosols - B5
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Flammable Aerosols - B5
- 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
Acetone	CAS:67-64-1 EC Number:200-662-2 UN:UN1090	22% TO 28%	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 2, H319; STOT SE 3, H336; EUH066; OSHA HCS 2012: Flam Liq 2; Eye Irrit. 2A; STOT SE 3 - Narc	NDA
Propane	CAS:74-98-6 EC Number:200-827-9 UN:UN1978	18% TO 22%	NDA	EU DSD/DPD: Annex I - F+; R12 EU CLP: Annex VI - Flam Gas 1, H220; Press Gas, H280 OSHA HCS 2012: Flam. Gas 1; Press. Gas - Comp.; Simp. Asphyx.	NDA
				EU DSD/DPD: Annex I - F; R11; Repr. 3; R62; Xn; R65-48/20; Xi; R38; R67; N; R51-53	

Hexane	CAS: 110-54-3 EC Number: 203-777-6	18% TO 22%	Ingestion/Oral-Rat LD50 • 25 g/kg Inhalation-Rat LC50 • 48000 ppm 4 Hour(s)	EU CLP: Annex VI - Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2*, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; STOT RE 2 - CNS & Nervous System; Skin Irrit. 2; Eye Irrit. 2B; STOT SE 3: Narc. & Resp. Irrit.; Asp. Tox. 1	NDA
Methyl ether	CAS: 115-10-6 EC Number: 204-065-8 UN: UN1033	14% TO 16%	Inhalation-Rat LC50 • 308 g/m ³	EU DSD/DPD: Annex I - F+ R12 EU CLP: Annex VI - Flam Gas 1, H220; Press Gas, H280 OSHA HCS 2012: Flam. Gas 1; Press Gas - Comp.; STOT SE 3:Narc. & Resp. Irrit.; Eye Irrit. 2A; Skin Irrit. 2	NDA
Toluene	CAS: 108-88-3 EC Number: 203-625-9 UN: UN1294	3% TO 7%	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, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2 *, H373; Skin Irrit. 2, H315; STOT SE 3, H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox 4 (Oral); STOT SE 3: Narc.; Asp. Tox 1	NDA
C12-C14 Isoalkanes	CAS: 68551-19-9 EINECS: 271-369-5	3% TO 7%	NDA	EU DSD/DPD: Data lacking EU CLP: Data lacking OSHA HCS 2012: Data lacking	NDA
Cyclohexane	CAS: 110-82-7 EC Number: 203-806-2 UN: UN1145	8% TO 12%	Ingestion/Oral-Rat LD50 • 12705 mg/kg	EU DSD/DPD: Annex I - F; R11 Xn; R65 Xi; R38 R67 N; R50-53 EU CLP: Annex VI - Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Flam. Liq 2; Eye Irrit 2A, STOT SE 3: Resp Irrit & Narc.; Skin Irrit 2.; Asp Tox 1	NDA
Benzene	CAS: 71-43-2 EC Number: 200-753-7 UN: UN1114	< 0.005%	Skin-Rabbit LD50 • >9400 µL/kg Ingestion/Oral-Rat LD50 • 1 mL/kg	EU CLP: Community workplace exposure limit	NDA
Acetaldehyde	CAS: 75-07-0 EC Number: 200-836-8 UN: UN1089	< 0.006%	Ingestion/Oral-Rat LD50 • 661 mg/kg Skin-Rabbit LD50 • 3540 mg/kg Inhalation-Rat LC50 • 13300 ppm 4 Hour(s)	EU CLP: Community workplace exposure limit	NDA
Formaldehyde	CAS: 50-00-0 EC Number: 200-001-8 UN: UN1198	< 0.006%	Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 203 mg/m ³ Skin-Rabbit LD50 • 270 mg/kg	EU CLP: Community workplace exposure limit	NDA

See Section 11 for Toxicological Information. See Section 16 for full text of H-statements and R-phrases.

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. If signs/symptoms continue, get medical attention.

- Skin**
- In case of skin contact, clean with rubbing alcohol, mineral oil, baby oil or makeup remover first to remove sticky resin, followed immediately by washing affected area with soap and water.
- 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, DO NOT induce vomiting. Give plenty of water to drink. Do not give anything by mouth to an unconscious person. Get medical attention.

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**
- In case of ingesting large amount of the product- seek medical advice.

See Section 2 for Potential Health Effects.

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- Water, foam, dry chemical, carbon dioxide (CO₂).

- Unsuitable Extinguishing Media**
- No data available

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Extremely Flammable Aerosol. Toxic fumes and vapors may be produced. Containers may explode when heated. This product is volatile and gives off invisible vapors. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back.
- Hazardous Combustion Products**
- Carbon dioxide, carbon monoxide, various hydrocarbons, carboxylic acid, acrid smoke 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 chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA). Move fire exposed containers if safe to do so. Cool fire exposed containers with water spray. Dike contaminated fire-control water for later disposal. Use fine water spray to reduce vapors; do not put water directly on point of material release from container.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Minimize breathing vapors. Minimize skin contact. Ventilate enclosed areas.
- Emergency Procedures**
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering. Keep out of low areas. Continue to observe precautions for volatile, flammable vapors from absorbed material.

6.2 Environmental precautions

- Keep product clear of sewers, water, or extensive land areas. Assure conformity with applicable government regulations.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
For small liquid spills: wipe up liquid with paper towels and clean any sticky residue with rubbing alcohol, mineral oil, baby oil or makeup remover. For larger liquid spills: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers for later disposal. Clean any sticky residue with rubbing alcohol, mineral oil, baby oil or makeup remover.
All equipment used when handling the product must be grounded.
Spent aerosol containers should be disposed of according to appropriate regulations.

6.4 Reference to other sections

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

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from heat and ignition sources – No Smoking. Keep containers closed. Vapors of this material are heavier than air and will collect in low or confined areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near containers. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Use good safety and industrial hygiene practices. Do not breathe (dust, vapor or spray mist) Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Do not store above 120° F. Do not store in direct sunlight. Protect containers from mechanical damage. Keep container/package tightly closed in a cool, well-ventilated place.

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 Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Benzene (71-43-2)	STELs	2.5 ppm STEL	2.5 ppm STEL; 8 mg/m3 STEL	2.5 ppm STEL	2.5 ppm STEL	2.5 ppm STEL; 8 mg/m3 STEL
	TWAs	0.5 ppm TWA	0.5 ppm TWA; 1.6 mg/m3 TWA	0.5 ppm TWA	0.5 ppm TWA	0.5 ppm TWA; 1.6 mg/m3 TWA
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	1 ppm Ceiling; 1.3 mg/m3 Ceiling	1 ppm Ceiling	0.3 ppm Ceiling	Not established
	TWAs	Not established	0.75 ppm TWA; 0.9 mg/m3 TWA	0.3 ppm TWA	Not established	0.5 ppm TWA
	STELs	Not established	Not established	Not established	Not established	1.5 ppm STEL
Acetaldehyde (75-07-0)	Ceilings	25 ppm Ceiling	25 ppm Ceiling; 45 mg/m3 Ceiling	25 ppm Ceiling	25 ppm Ceiling	25 ppm Ceiling; 45 mg/m3 Ceiling

Toluene (108-88-3)	TWAs	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA	20 ppm TWA	20 ppm TWA	50 ppm TWA; 188 mg/m3 TWA
Cyclohexane (110-82-7)	TWAs	100 ppm TWA	100 ppm TWA; 344 mg/m3 TWA	100 ppm TWA	100 ppm TWA	300 ppm TWA; 1030 mg/m3 TWA
Methyl ether (115-10-6)	TWAs	Not established	Not established	1000 ppm TWA	Not established	Not established
Hexane (110-54-3)	TWAs	50 ppm TWA	50 ppm TWA; 176 mg/m3 TWA	20 ppm TWA	50 ppm TWA	50 ppm TWA; 176 mg/m3 TWA
Propane (74-98-6)	TWAs	1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	1000 ppm TWA	1000 ppm TWA	1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	Not established
Acetone (67-64-1)	STELs	750 ppm STEL	750 ppm STEL; 1800 mg/m3 STEL	500 ppm STEL	750 ppm STEL	750 ppm STEL; 1782 mg/m3 STEL
	TWAs	500 ppm TWA	500 ppm TWA; 1200 mg/m3 TWA	250 ppm TWA	500 ppm TWA	500 ppm TWA; 1188 mg/m3 TWA

Exposure Limits/Guidelines (Con't.)

	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec
Benzene (71-43-2)	STELs	25 ppm STEL; 80 mg/m3 STEL	2.5 ppm STEL	25 ppm STEL; 80 mg/m3 STEL	2.5 ppm STEL (applies to workplaces to which the designated substance regulation does not apply); 2.5 ppm STEL (designated substances regulation)	5 ppm STEV; 15.5 mg/m3 STEV
	TWAs	10 ppm TWA; 32 mg/m3 TWA	0.5 ppm TWA	10 ppm TWA; 32 mg/m3 TWA	0.5 ppm TWA (applies to workplaces to which the designated substance regulation does not apply); 0.5 ppm TWA (designated substance regulation)	1 ppm TWA EV; 3 mg/m3 TWA EV
Formaldehyde (50-00-0)	Ceilings	2 ppm Ceiling; 2.4 mg/m3 Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m3 Ceiling	1.5 ppm Ceiling	2 ppm Ceiling; 3 mg/m3 Ceiling
	STELs	Not established	Not established	Not established	1.0 ppm STEL	Not established
Acetaldehyde (75-07-0)	STELs	150 ppm STEL; 270 mg/m3 STEL	Not established	150 ppm STEL; 270 mg/m3 STEL	Not established	Not established
	TWAs	100 ppm TWA; 180 mg/m3 TWA	Not established	100 ppm TWA; 180 mg/m3 TWA	Not established	Not established
	Ceilings	Not established	25 ppm Ceiling	Not established	25 ppm Ceiling	25 ppm Ceiling; 45 mg/m3 Ceiling
Toluene (108-88-3)	STELs	150 ppm STEL; 560 mg/m3 STEL	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	Not established
	TWAs	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	50 ppm TWA EV; 188 mg/m3 TWA EV

Cyclohexane (110-82-7)	STELs	375 ppm STEL; 1290 mg/m3 STEL	Not established	375 ppm STEL; 1290 mg/m3 STEL	Not established	Not established
	TWAs	300 ppm TWA; 1030 mg/m3 TWA	100 ppm TWA	300 ppm TWA; 1030 mg/m3 TWA	100 ppm TWA	300 ppm TWAEV; 1030 mg/m3 TWAEV
Hexane (110-54-3)	STELs	125 ppm STEL; 440 mg/m3 STEL	Not established	125 ppm STEL; 440 mg/m3 STEL	Not established	Not established
	TWAs	100 ppm TWA; 352 mg/m3 TWA	50 ppm TWA	100 ppm TWA; 352 mg/m3 TWA	50 ppm TWA	50 ppm TWAEV; 176 mg/m3 TWAEV
Propane (74-98-6)	TWAs	Not established	1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	Not established	1000 ppm TWA	1000 ppm TWAEV; 1800 mg/m3 TWAEV
Acetone (67-64-1)	STELs	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1250 ppm STEL; 2970 mg/m3 STEL	750 ppm STEL	1000 ppm STEV; 2380 mg/m3 STEV
	TWAs	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	1000 ppm TWA; 2370 mg/m3 TWA	500 ppm TWA	500 ppm TWAEV; 1190 mg/m3 TWAEV

Exposure Limits/Guidelines (Con't.)

	Result	Canada Saskatchewan	Canada Yukon	Europe	NIOSH	OSHA
Benzene (71-43-2)	TWAs	Not established	32 mg/m3 TWA	Not established	0.1 ppm TWA	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA
	Ceilings	Not established	10 ppm Ceiling; 32 mg/m3 Ceiling	Not established	Not established	25 ppm Ceiling
	STELs	Not established	Not established	Not established	1 ppm STEL	5 ppm STEL (see 29 CFR 1910.1028)
Formaldehyde (50-00-0)	Ceilings	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	0.1 ppm Ceiling (15 min)	Not established
	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
Acetaldehyde (75-07-0)	STELs	Not established	150 ppm STEL; 270 mg/m3 STEL	Not established	Not established	Not established
	TWAs	Not established	100 ppm TWA; 180 mg/m3 TWA	Not established	Not established	200 ppm TWA; 360 mg/m3 TWA
Toluene (108-88-3)	STELs	Not established	150 ppm STEL; 560 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL	150 ppm STEL; 560 mg/m3 STEL	Not established
	TWAs	50 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA
	Ceilings	Not established	Not established	Not established	Not established	300 ppm Ceiling
Cyclohexane (110-82-7)	TWAs	100 ppm TWA	300 ppm TWA; 1050 mg/m3 TWA	200 ppm TWA; 700 mg/m3 TWA	300 ppm TWA; 1050 mg/m3 TWA	300 ppm TWA; 1050 mg/m3 TWA
	STELs	Not established	375 ppm STEL; 1300 mg/m3 STEL	Not established	Not established	Not established
Hexane (110-54-3)	TWAs	50 ppm TWA	100 ppm TWA; 360 mg/m3 TWA	20 ppm TWA; 72 mg/m3 TWA	50 ppm TWA; 180 mg/m3 TWA	500 ppm TWA; 1800 mg/m3 TWA
	STELs	Not established	125 ppm STEL; 450 mg/m3 STEL	Not established	Not established	Not established

Propane (74-98-6)	TWAs	1000 ppm TWA	Not established	Not established	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 1800 mg/m3 TWA
Acetone (67-64-1)	TWAs	500 ppm TWA	1000 ppm TWA; 2400 mg/m3 TWA	Not established	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
	STELs	Not established	1250 ppm STEL; 3000 mg/m3 STEL	Not established	Not established	Not established

8.2 Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- Use with ventilation sufficient to prevent exceeding recommended exposure limits or build up of explosive concentrations of vapor in air. If personal exposure concentrations cannot be maintained below the appropriate exposure limits using engineering controls, a NIOSH approved respirator may be appropriate based on employer-determined exposure levels.

Eye/Face

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

Skin/Body

- Wear polyvinyl alcohol, nitrile rubber, or neoprene glove when handling this product to avoid prolonged skin contact.

General Industrial Hygiene Considerations

- Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to 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

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

NIOSH = National Institute of Occupational Safety and Health

TWAEV = Time-Weighted Average Exposure Value

OSHA = Occupational Safety and Health Administration

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

STEV = Short Term Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Aerosol	Appearance/Description	Clear amber liquid with mint odor.
Color	Clear amber.	Odor	Mint odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	44 to 472 F(6.6667 to 244.4444 C)	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	0.68 Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	vapours may form explosive mixtures with air.
Oxidizing Properties:	No oxidizing properties.		
Volatility			
Vapor Pressure	4000 hPa @ 20 C(68 F)	Vapor Density	Data lacking
Evaporation Rate	> 1 n-Butyl Acetate = 1	Volatiles (Wt.)	79 %
Volatiles (Vol.)	84 %		
Flammability			
Flash Point	-156 F(-104.4444 C) PMCC (Pensky-Martins Closed Cup)	UEL	18 %

LEL	1 %	Autoignition	Data lacking
Flammability (solid, gas)	Extremely flammable.		
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

- Incompatible with acids, oxidizers, aldehydes, reducing agents.

10.6 Hazardous decomposition products

- Carbon monoxide and carbon dioxide, various hydrocarbons and carboxylic acids.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Component Name	CAS	Data
Acetone (22% TO 28%)	67-64-1	Acute Toxicity: orl-rat LD50:5800 mg/kg; ihl-rat LC50:50100 mg/m ³ /8H; Irritation: eye-rbt 20 mg/24H MOD; skn-rbt 500 mg/24H MLD; Reproductive: ihl-rat TCLo:11000 ppm (6-19D preg)
Hexane (18% TO 22%)	110-54-3	Acute Toxicity: orl-rat LD50:25 gm/kg; ihl-rat LC50:48000 ppm/4H; Irritation: eye-rbt 10 mg MLD; Reproductive: ihl-rat TCLo:5000 ppm (6-19D preg)
Methyl ether (14% TO 16%)	115-10-6	Acute Toxicity: ihl-rat LC50:309 gm/m ³ /4H
Toluene (3% TO 7%)	108-88-3	Acute Toxicity: orl-rat LD50:636 mg/kg; ihl-rat LC50:49 gm/m ³ /4H; skn-rbt LD50:14100 uL/kg; Irritation: eye-rbt 100 mg/30S rinse MLD; skn-rbt 435 mg MLD; Reproductive: ihl-rat TCLo:1500 ppm (7-20D preg)
Cyclohexane (8% TO 12%)	110-82-7	Acute Toxicity: orl-rat LD50:12705 mg/kg; Irritation: skn-rbt 1548 mg/2D-l

GHS Properties	Classification
Acute toxicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
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; 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 • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2A

Target Organs

- Nervous System, Central Nervous System (CNS)

Route(s) of entry/exposure

- Inhalation, Skin, Eye

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)

- No data available.

Skin

Acute (Immediate)

- Causes mild skin irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (Delayed)

- Prolonged or repeated contact can cause moderate irritation defatting, dermatitis.

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- No data available.

Ingestion

Acute (Immediate)

- No data available.

Chronic (Delayed)

- No data available.

Other

Chronic (Delayed)

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

Carcinogenic Effects

- The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Reproductive Effects

- Repeated or prolonged exposure to toluene may cause reproductive effects.

Key to abbreviations

TC = Toxic Concentration

MOD = Moderate

LD = Lethal Dose

LC = Lethal Concentration

MLD = Mild

Section 12 - Ecological Information

12.1 Toxicity

Component	CAS	Data	Comments
Hexane (18% TO 22%)	110-54-3	Fish: 96 Hour(s) LC50 Fish 2.1-2.98 mg/L	
Cyclohexane (8% TO 12%)	110-82-7	Fish: 96 Hour(s) LC50 Fish 23.03-42.07 mg/L [Static]	

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

Potential Environmental Effects

- According to Annex VI to Regulation (EC) No 1272/2008 Table 3.1 and Table 3.2 the hexane and cyclohexane components of this material may cause adverse effects to the environment.

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	UN1950	Aerosols, flammable	2.1	NDA	NDA
TDG	UN1950	AEROSOLS, Flammable	2.1	NDA	NDA
IMO/IMDG	UN1950	AEROSOLS, flammable	2.1	NDA	NDA
ADN	UN1950	AEROSOLS, toxic, oxidizing, corrosive	2	NDA	NDA
ADR/RID	UN1950	AEROSOLS	2	NDA	NDA
IATA/ICAO	UN1950	Aerosols, Flammable	2.1	NDA	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, Pressure(Sudden Release of)

State Right To Know				
Component	CAS	MA	NJ	PA
Acetone	67-64-1	Yes	Yes	Yes
Propane	74-98-6	Yes	Yes	Yes
Hexane	110-54-3	Yes	Yes	Yes
Methyl ether	115-10-6	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes
C12-C14 Isoalkanes	68551-19-9	No	No	No
Cyclohexane	110-82-7	Yes	Yes	Yes
Benzene	71-43-2	Yes	Yes	Yes
Acetaldehyde	75-07-0	Yes	Yes	Yes
Formaldehyde	50-00-0	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
Acetone	67-64-1	Yes	No	Yes	No	Yes
Propane	74-98-6	Yes	No	Yes	No	Yes
Hexane	110-54-3	Yes	No	Yes	No	Yes
Methyl ether	115-10-6	Yes	No	Yes	No	Yes
Toluene	108-88-3	Yes	No	Yes	No	Yes
C12-C14 Isoalkanes	68551-19-9	Yes	No	Yes	No	Yes
Cyclohexane	110-82-7	Yes	No	Yes	No	Yes
Benzene	71-43-2	Yes	No	Yes	No	Yes
Acetaldehyde	75-07-0	Yes	No	Yes	No	Yes
Formaldehyde	50-00-0	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- C12-C14 Isoalkanes 68551-19-9 Not Listed
- Acetone 67-64-1 B2, D2B
- Formaldehyde 50-00-0 A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated under Formol)
- Acetaldehyde 75-07-0 B2, D2A
- Cyclohexane 110-82-7 B2, D2B
- Propane 74-98-6 A, B1
- Toluene 108-88-3 B2, D2A, D2B
- Benzene 71-43-2 B2, D2A, D2B
- Hexane 110-54-3 B2, D2A, D2B
- Methyl ether 115-10-6 Not Listed

Canada - WHMIS - Ingredient Disclosure List

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	1 %
• Formaldehyde	50-00-0	0.1 %
• Acetaldehyde	75-07-0	1 %
• Cyclohexane	110-82-7	1 %
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	1 %
• Benzene	71-43-2	0.1 %
• Hexane	110-54-3	1 %
• Methyl ether	115-10-6	Not Listed

Environment

Canada - CEPA - Priority Substances List

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Priority Substance List 2 (substance considered toxic)
• Acetaldehyde	75-07-0	Priority Substance List 2 (substance considered toxic)
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Benzene	71-43-2	Priority Substance List 1 (substance considered toxic)
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

Europe

Other

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	F; R11 Xi; R36 R66 R67
• Formaldehyde	50-00-0	T; R23/24/25 C; R34 Carc.Cat.3; R40 R43
• Acetaldehyde	75-07-0	F+; R12 Xi; R36/37 Carc.Cat.3; R40
• Cyclohexane	110-82-7	F; R11 Xi; R38 N; R50-53 Xn; R65 R67
• Propane	74-98-6	F+; R12
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Benzene	71-43-2	F; R11 Xi; R36/38 Carc.Cat.1; R45 Muta.Cat.2; R46 T; R48/23/24/25 Xn; R65
• Hexane	110-54-3	F; R11 Xi; R38 N; R51-53 Repr.Cat.3; R62 Xn; R65-48/20 R67
• Methyl ether	115-10-6	F+; R12

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	0.2%≤C: R:43 25%≤C: T; R:23/24/25 5%≤C<25%: Xn; R:20/21/22 25%≤C: C; R:34 5%≤C<25%: Xi; R:36/37/38
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	5%≤C: Xn; R48/20
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	F Xi R:11-36-66-67 S:(2)-9-16-26
• Formaldehyde	50-00-0	T R:23/24/25-34-40-43 S:(1/2)-26-36/37/39-45-51
• Acetaldehyde	75-07-0	F+ Xn R:12-36/37-40 S:(2)-16-33-36/37
• Cyclohexane	110-82-7	F Xn N R:11-38-65-67-50/53 S:(2)-9-16-25-33-60-61-62
• Propane	74-98-6	F+ R:12 S:(2)-9-16
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Benzene	71-43-2	F T R:45-46-11-36/38-48/23/24/25-65 S:53-45
• Hexane	110-54-3	F Xn N R:11-38-48/20-62-65-67-51/53 S:(2)-9-16-29-33-36/37-61-62
• Methyl ether	115-10-6	F+ R:12 S:(2)-9-16-33

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	B, D
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	E
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	S:(2)-9-16-26
• Formaldehyde	50-00-0	S:(1/2)-26-36/37/39-45-51
• Acetaldehyde	75-07-0	S:(2)-16-33-36/37
• Cyclohexane	110-82-7	S:(2)-9-16-25-33-60-61-62
• Propane	74-98-6	S:(2)-9-16
• Toluene	108-88-3	S:(2)-36/37-46-62
• Benzene	71-43-2	S:53-45
• Hexane	110-54-3	S:(2)-9-16-29-33-36/37-61-62
• Methyl ether	115-10-6	S:(2)-9-16-33

United States

Labor

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Acetaldehyde	75-07-0	2500 lb TQ
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level; 0.75 ppm TWA
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

Environment

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	
• Acetaldehyde	75-07-0	
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	(including Benzene from gasoline)
• Hexane	110-54-3	
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
• Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ
• Acetaldehyde	75-07-0	1000 lb final RQ; 454 kg final RQ
• Cyclohexane	110-82-7	1000 lb final RQ; 454 kg final RQ
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Benzene	71-43-2	10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)
• Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed

• Formaldehyde	50-00-0	100 lb EPCRA RQ
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	500 lb TPQ
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	0.1 % de minimis concentration
• Acetaldehyde	75-07-0	0.1 % de minimis concentration
• Cyclohexane	110-82-7	1.0 % de minimis concentration
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	1.0 % de minimis concentration
• Benzene	71-43-2	0.1 % de minimis concentration
• Hexane	110-54-3	1.0 % de minimis concentration
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Included in waste stream: F039
• Formaldehyde	50-00-0	Included in waste streams: K009, K010, K038, K040, K156, K157
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151

• Benzene	71-43-2	Included in waste streams: F005, F024, F025, F037, F038, F039, K085, K104, K105, K141, K142, K143, K144, K145, K147, K151, K159, K169, K171, K172
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	0.5 mg/L regulatory level
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	waste number U122
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	waste number U220
• Benzene	71-43-2	waste number U019
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	0.28 mg/L (wastewater); 160 mg/kg (nonwastewater)
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Benzene	71-43-2	0.14 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	
• Benzene	71-43-2	
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	waste number U002 (Ignitable waste)
• Formaldehyde	50-00-0	waste number U122
• Acetaldehyde	75-07-0	waste number U001 (Ignitable waste)
• Cyclohexane	110-82-7	waste number U056 (Ignitable waste)
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	waste number U220
• Benzene	71-43-2	waste number U019 (Ignitable waste, Toxic waste)
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

United States - California

Environment

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	carcinogen, initial date 1/1/88 (gas)
• Acetaldehyde	75-07-0	carcinogen, initial date 4/1/88
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	carcinogen, initial date 2/27/87
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed

• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Benzene	71-43-2	developmental toxicity, initial date 12/26/97
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)
• Benzene	71-43-2	24 µg/day MADL (oral); 49 µg/day MADL (inhalation)
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	40 µg/day NSRL (gas)
• Acetaldehyde	75-07-0	90 µg/day NSRL (inhalation)
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	6.4 µg/day NSRL (oral); 13 µg/day NSRL (inhalation)
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Benzene	71-43-2	Not Listed
• Hexane	110-54-3	Not Listed
• Methyl ether	115-10-6	Not Listed

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

• C12-C14 Isoalkanes	68551-19-9	Not Listed
• Acetone	67-64-1	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Acetaldehyde	75-07-0	Not Listed
• Cyclohexane	110-82-7	Not Listed
• Propane	74-98-6	Not Listed
• Toluene	108-88-3	Not Listed
• Benzene	71-43-2	male reproductive toxicity, initial date 12/26/97
• Hexane	110-54-3	Not Listed

- Methyl ether 115-10-6 Not Listed

United States - Pennsylvania

Labor

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

- C12-C14 Isoalkanes 68551-19-9 Not Listed
- Acetone 67-64-1
- Formaldehyde 50-00-0
- Acetaldehyde 75-07-0
- Cyclohexane 110-82-7
- Propane 74-98-6 Not Listed
- Toluene 108-88-3
- Benzene 71-43-2
- Hexane 110-54-3 Not Listed
- Methyl ether 115-10-6 Not Listed

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

- C12-C14 Isoalkanes 68551-19-9 Not Listed
- Acetone 67-64-1 Not Listed
- Formaldehyde 50-00-0
- Acetaldehyde 75-07-0 Not Listed
- Cyclohexane 110-82-7 Not Listed
- Propane 74-98-6 Not Listed
- Toluene 108-88-3 Not Listed
- Benzene 71-43-2
- Hexane 110-54-3 Not Listed
- Methyl ether 115-10-6 Not Listed

United States - Rhode Island

Labor

U.S. - Rhode Island - Hazardous Substance List

- C12-C14 Isoalkanes 68551-19-9 Not Listed
- Acetone 67-64-1 Toxic; Flammable
- Formaldehyde 50-00-0 Toxic; Flammable; Carcinogen
- Acetaldehyde 75-07-0 Toxic; Flammable
- Cyclohexane 110-82-7 Toxic; Flammable
- Propane 74-98-6 Toxic; Flammable
- Toluene 108-88-3 Toxic (skin); Flammable (skin)
- Benzene 71-43-2 Toxic (skin); Flammable (skin); Carcinogen (skin)
- Hexane 110-54-3 Toxic; Flammable
- Methyl ether 115-10-6 Flammable

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H220 - Extremely flammable gas
- H225 - Highly flammable liquid and vapour
- H280 - Contains gas under pressure; may explode if heated

H304 - May be fatal if swallowed and enters airways
H361f - Suspected of damaging fertility.
H361d - Suspected of damaging the unborn child.
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

R11 - Highly flammable.

R36 - Irritating to eyes.

R38 - Irritating to skin.

R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R62 - Possible risk of impaired fertility.

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.

R50 - Very toxic to aquatic organisms.

Last Revision Date

- 19/June/2013

Preparation Date

- 02/March/2009

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Key to abbreviations

NDA = No data available
