

Material Safety Data Sheet

KONFORM® ULTRA

1. Product and company identification

Product name	: KONFORM® ULTRA
Supplier	: COMPANY NAME COMPANY ADDRESS EMERGENCY TELEPHONE
Trade name	: KONFORM® ULTRA
Manufacturer	: ITW Chemtronics 8125 Cobb Center Drive Kennesaw, GA 30152
	Tel. 770-424-4888 or toll free 800-645-5244
Code	: CTUFD-12
MSDS #	: CTUFD-12
Validation date	: 2/20/2013.
Print date	: 2/20/2013.
In case of emergency	: Chemtrec - 1-800-424-9300 or collect 703-527-3887
Product type	: Aerosol.

2. Hazards identification

Emergency overview

Physical state	: Liquid.
Color	: Clear. Colorless. [Light]
Odor	: Characteristic. Aromatic.
Signal word	: DANGER!
Hazard statements	: FLAMMABLE AEROSOL. CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautionary measures	: Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation	: Harmful if inhaled. At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen.
Ingestion	: Harmful if swallowed. Irritating to mouth, throat and stomach.
Skin	: Slightly irritating to the skin.
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

Chronic effects	: Contains material that may cause target organ damage, based on animal data.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

2. Hazards identification

Target organs : Contains material which may cause damage to the following organs: blood, lungs, the nervous system, liver, heart, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

Skin : Adverse symptoms may include the following:
irritation
redness

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
propyl acetate	109-60-4	20 - 25
acetone	67-64-1	15 - 18
Isobutane	75-28-5	10 - 14
propane	74-98-6	10 - 14
heptane	142-82-5	8 - 10

Canada

Name	CAS number	%
propyl acetate	109-60-4	20 - 25
acetone	67-64-1	15 - 18
Isobutane	75-28-5	10 - 14
propane	74-98-6	10 - 14
heptane	142-82-5	8 - 10

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
acetone	67-64-1	UN1993	15 - 18	2500 ppm	2	3	0	-
propyl acetate	109-60-4	UN1993	20 - 25	1700 ppm	1	3	0	-
Isobutane	75-28-5	UN1954	10 - 14	-	0	4	0	-
propane	74-98-6	UN1954	10 - 14	2100 ppm	0	4	0	-
heptane	142-82-5	UN1993	8 - 10	750 ppm	0	3	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact	: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion	: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician	: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product	: Flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.
Extinguishing media	
Suitable	: Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: None known.
Special exposure hazards	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for cleaning up	

6. Accidental release measures

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Handling

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous.

Storage

: Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
propyl acetate	<p>ACGIH TLV (United States, 3/2012). STEL: 1040 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 835 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p> <p>NIOSH REL (United States, 6/2009). STEL: 1050 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 840 mg/m³ 10 hours. TWA: 200 ppm 10 hours.</p> <p>OSHA PEL (United States, 6/2010). TWA: 840 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). STEL: 1050 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 840 mg/m³ 8 hours. TWA: 200 ppm 8 hours.</p>
acetone	<p>ACGIH TLV (United States, 3/2012). STEL: 1782 mg/m³ 15 minutes. STEL: 750 ppm 15 minutes.</p>

8. Exposure controls/personal protection

	<p>TWA: 1188 mg/m³ 8 hours. TWA: 500 ppm 8 hours. NIOSH REL (United States, 6/2009). TWA: 590 mg/m³ 10 hours. TWA: 250 ppm 10 hours. OSHA PEL (United States, 6/2010). TWA: 2400 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). STEL: 2400 mg/m³ 15 minutes. STEL: 1000 ppm 15 minutes. TWA: 1800 mg/m³ 8 hours. TWA: 750 ppm 8 hours.</p>
Isobutane	<p>NIOSH REL (United States, 6/2009). TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. ACGIH TLV (United States, 3/2012). TWA: 1000 ppm 8 hours.</p>
propane	<p>ACGIH TLV (United States, 3/2012). TWA: 1000 ppm 8 hours. NIOSH REL (United States, 6/2009). TWA: 1800 mg/m³ 10 hours. TWA: 1000 ppm 10 hours. OSHA PEL (United States, 6/2010). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p>
heptane	<p>ACGIH TLV (United States, 3/2012). TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2050 mg/m³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 400 ppm 8 hours. TWA: 1600 mg/m³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 2000 mg/m³ 15 minutes. NIOSH REL (United States, 6/2009). TWA: 85 ppm 10 hours. TWA: 350 mg/m³ 10 hours. CEIL: 440 ppm 15 minutes. CEIL: 1800 mg/m³ 15 minutes. OSHA PEL (United States, 6/2010). TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.</p>

[Canada](#)

8. Exposure controls/personal protection

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/ m³	Other	ppm	mg/ m³	Other	ppm	mg/ m³	Other	Notations
propane	US ACGIH 3/2012	1000	-	-	-	-	-	-	-	-	
	AB 4/2009	1000	-	-	-	-	-	-	-	-	
	BC 4/2012	1000	-	-	-	-	-	-	-	-	
	ON 7/2010	1000	-	-	-	-	-	-	-	-	
	QC 9/2011	1000	1800	-	-	-	-	-	-	-	
Isobutane	US ACGIH 3/2012	1000	-	-	-	-	-	-	-	-	
	AB 4/2009	1000	-	-	-	-	-	-	-	-	
	BC 4/2012	1000	-	-	-	-	-	-	-	-	
	ON 7/2010	800	-	-	-	-	-	-	-	-	
	acetone	US ACGIH 3/2012	500	1188	-	750	1782	-	-	-	
acetone	AB 4/2009	500	1200	-	750	1800	-	-	-	-	
	BC 4/2012	250	-	-	500	-	-	-	-	-	
	ON 7/2010	500	1188	-	750	1782	-	-	-	-	
	QC 9/2011	500	1190	-	1000	2380	-	-	-	-	
	propyl acetate	US ACGIH 3/2012	200	835	-	250	1040	-	-	-	[3]
heptane	AB 4/2009	200	835	-	250	1040	-	-	-	-	
	BC 4/2012	200	-	-	250	-	-	-	-	-	
	ON 7/2010	200	835	-	250	1040	-	-	-	-	
	QC 9/2011	200	835	-	250	1040	-	-	-	-	
	US ACGIH 3/2012	400	1640	-	500	2050	-	-	-	-	
heptane	AB 4/2009	400	1640	-	500	2050	-	-	-	-	
	BC 4/2012	400	-	-	500	-	-	-	-	-	
	ON 7/2010	400	1640	-	500	2050	-	-	-	-	
	QC 9/2011	400	1640	-	500	2050	-	-	-	-	

[3]Skin sensitization

Mexico

Occupational exposure limits

Ingredient	Exposure limits
propyl acetate	NOM-010-STPS (Mexico, 9/2000). LMPE-CT: 1050 mg/m³ 15 minutes. LMPE-CT: 250 ppm 15 minutes. LMPE-PPT: 840 mg/m³ 8 hours. LMPE-PPT: 200 ppm 8 hours.
acetone	NOM-010-STPS (Mexico, 9/2000). LMPE-CT: 3000 mg/m³ 15 minutes. LMPE-CT: 1260 ppm 15 minutes. LMPE-PPT: 2400 mg/m³ 8 hours. LMPE-PPT: 1000 ppm 8 hours.
Isobutane	ACGIH TLV (United States, 3/2012). TWA: 1000 ppm 8 hours.
propane	ACGIH TLV (United States, 3/2012). TWA: 1000 ppm 8 hours.
heptane	NOM-010-STPS (Mexico, 9/2000). Absorbed through skin. LMPE-PPT: 400 ppm 8 hours. LMPE-PPT: 1600 mg/m³ 8 hours. LMPE-CT: 2000 mg/m³ 15 minutes. LMPE-CT: 500 ppm 15 minutes.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8. Exposure controls/personal protection

Engineering measures	: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<u>Personal protection</u>	
Respiratory	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Eyes	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state	: Liquid.
Flash point	: Closed cup: -1.11°C (30°F) [Tagliabue.]
Color	: Clear. Colorless. [Light]
Odor	: Characteristic. Aromatic.
Solubility	: Insoluble in the following materials: cold water and hot water.
<u>Aerosol product</u>	
Type of aerosol	: Spray
Heat of combustion	: -19.67 kJ/g
Ignition distance	: 90 cm

10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame).
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

United States

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobutane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
acetone	LD50 Oral	Rat	5800 mg/kg	-
propyl acetate	LD50 Oral	Rat	9370 mg/kg	-
heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m ³	4 hours

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
propyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
propyl acetate	-	-	-	-	-	None.
acetone	-	-	-	A4	-	None.
propane	-	-	-	-	-	None.

Mutagenicity

Conclusion/Summary : Not available.

11. Toxicological information

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Canada

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobutane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
acetone	LD50 Oral	Rat	5800 mg/kg	-
propyl acetate	LD50 Oral	Rat	9370 mg/kg	-
heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m ³	4 hours

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
propyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
propyl acetate	-	-	-	None.	-	-
acetone	A4	-	-	None.	-	-
propane	-	-	-	None.	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Mexico

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
propyl acetate	LD50 Oral	Rat	9370 mg/kg	-
Isobutane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m ³	4 hours

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
propyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
propyl acetate	-	-	-	None.	-	-
acetone	A4	-	-	None.	-	-
propane	-	-	-	None.	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

United States

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 20.565 mg/l Marine water Acute LC50 6000000 µg/l Fresh water Acute LC50 10000 µg/l Fresh water Acute LC50 100000 µg/l Fresh water Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.1 ml/L Fresh water	Algae - <i>Ulva pertusa</i> Crustaceans - <i>Gammarus pulex</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling) Algae - <i>Ulva pertusa</i> Daphnia - <i>Daphnia magna</i> - Neonate	96 hours 48 hours 48 hours 96 hours 96 hours 21 days
propyl acetate	Acute LC50 60000 to 64000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
heptane	Acute LC50 375000 µg/l Fresh water	Fish - <i>Oreochromis mossambicus</i>	96 hours

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

Canada

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 20.565 mg/l Marine water Acute LC50 6000000 µg/l Fresh water Acute LC50 10000 µg/l Fresh water Acute LC50 100000 µg/l Fresh water Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.1 ml/L Fresh water	Algae - <i>Ulva pertusa</i> Crustaceans - <i>Gammarus pulex</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling) Algae - <i>Ulva pertusa</i> Daphnia - <i>Daphnia magna</i> - Neonate	96 hours 48 hours 48 hours 96 hours 96 hours 21 days
propyl acetate	Acute LC50 60000 to 64000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
heptane	Acute LC50 375000 µg/l Fresh water	Fish - <i>Oreochromis mossambicus</i>	96 hours

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

Mexico

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 20.565 mg/l Marine water Acute LC50 6000000 µg/l Fresh water Acute LC50 10000 µg/l Fresh water Acute LC50 100000 µg/l Fresh water Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.1 ml/L Fresh water	Algae - <i>Ulva pertusa</i> Crustaceans - <i>Gammarus pulex</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling) Algae - <i>Ulva pertusa</i> Daphnia - <i>Daphnia magna</i> - Neonate	96 hours 48 hours 48 hours 96 hours 96 hours 21 days

12. Ecological information

propyl acetate	Acute LC50 60000 to 64000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
heptane	Acute LC50 375000 µg/l Fresh water	Fish - Oreochromis mossambicus	96 hours

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

13. Disposal considerations

Waste disposal	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.
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United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Acetone (I); 2-Propanone (I)	67-64-1	Listed	U002

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not available.	Consumer commodity ORM-D	ORM-D	-		Use ORM-D Label
TDG Classification	Not available.	Consumer commodity ID8000	9	-		-
Mexico Classification	Not available.	Consumer commodity ID8000	9	-		-
ADR/RID Class	UN1950	AEROSOLS, flammable	2	-		Tunnel code (D)

14. Transport information

IMDG Class	Not available.	Consumer Commodity ID8000. Marine pollutant	9	-		-
IATA-DGR Class	Not available.	Consumer Commodity ID8000	9	-		-

PG* : Packing group

15. Regulatory information

United States

HCS Classification	: Flammable aerosol Irritating material Target organ effects
U.S. Federal regulations	: TSCA 8(a) PAIR: heptane TSCA 8(a) CDR Exempt/Partial exemption: Not determined TSCA 12(b) one-time export: heptane United States inventory (TSCA 8b): All components are listed or exempted. Clean Air Act (CAA) 112 regulated flammable substances: propane; Isobutane
Clean Air Act Section 112	: Not listed
(b) Hazardous Air Pollutants (HAPs)	
Clean Air Act Section 602	: Not listed
Class I Substances	
Clean Air Act Section 602	: Not listed
Class II Substances	
DEA List I Chemicals (Precursor Chemicals)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ

: Not applicable.

SARA 311/312

Classification

: Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
propane	10 - 14	Yes.	Yes.	No.	No.	Yes.
Isobutane	10 - 14	Yes.	Yes.	No.	No.	Yes.
acetone	15 - 18	Yes.	No.	No.	Yes.	Yes.
propyl acetate	20 - 25	Yes.	No.	No.	No.	Yes.
heptane	8 - 10	Yes.	No.	No.	No.	Yes.

State regulations

Massachusetts : The following components are listed: PROPANE; ISOBUTANE; ACETONE; N-PROPYL ACETATE; HEPTANE (N-HEPTANE)

New York : The following components are listed: Acetone; 2-Propanone

New Jersey : The following components are listed: PROPANE; Isobutane; PROPANE, 2-METHYL-; ACETONE; 2-PROPANONE; n-PROPYL ACETATE; ACETIC ACID, PROPYL ESTER; n-HEPTANE; HEPTANE

Pennsylvania : The following components are listed: PROPANE; PROPANE, 2-METHYL-; 2-PROPANONE; ACETIC ACID, PROPYL ESTER; HEPTANE

United States inventory (TSCA 8b) : All components are listed or exempted.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid
Class B-5: Flammable aerosol.
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : The following components are listed: Propane; Butane (all isomers); Volatile organic compounds; Heptane (all isomers)

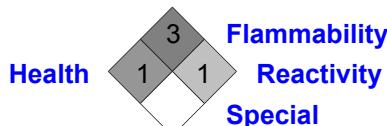
CEPA Toxic substances : The following components are listed: Volatile organic compounds

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Classification :



International regulations

International lists :

- Australia inventory (AICS)**: All components are listed or exempted.
- China inventory (IECSC)**: All components are listed or exempted.
- Japan inventory**: All components are listed or exempted.
- Korea inventory**: All components are listed or exempted.
- Malaysia Inventory (EHS Register)**: Not determined.
- New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
- Philippines inventory (PICCS)**: All components are listed or exempted.
- Taiwan inventory (CSNN)**: Not determined.

Chemical Weapons :

Convention List Schedule I Chemicals

15. Regulatory information

Chemical Weapons : Not listed

Convention List Schedule

II Chemicals

Chemical Weapons : Not listed

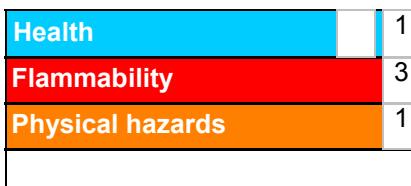
Convention List Schedule

III Chemicals

16. Other information

Label requirements : FLAMMABLE AEROSOL. CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.) :



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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Version : 1

Prepared by : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.