SAFETY DATA SHEET

SECTION 1 — IDENTIFICATION

Product identifier: **AlbaChem® Premium Mist Adhesive**
Product Number: 1787
Recommended Use: Adhesive
Recommended restrictions: This product is not for sale in California.

ALBATROSS USA INC./EXPERT WORLDWIDE

36-41 36th Street
Long Island City, New York
United States
11106
718-392-6272

5439 San Fernando Road West
Los Angeles, California
United States
90039
818-543-5850

Emergency Telephone #: Spill, leak, fire, exposure or accident – Call CHEMTREC – Day or Night
1-800-434-9300 or 1-703-527-3887 (USA & Canada)
01-800-681-9531 (Mexico)

This Safety Data Sheet conforms to the requirements of ANSI Z400.5, and to the format requirements of the Global Harmonizing System. This SDS complies with 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD).

IMPORTANT: Read this SDS before handling and disposing of this product. Pass this information on to employees, customers, and users of this product.

SECTION 2 — HAZARD(S) IDENTIFICATION

Physical hazards	Flammable aerosols	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity (fertility)	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
OSHA defined hazards	Not classified	

Label elements

Signal word Danger

Hazard statement Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

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/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. Do not breathe gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise Classified (HNOC)	Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Supplemental information	None

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Chemical name	CAS number	%
Hexane	110-54-3	10 - <25%
Hexane, Branched And Linear	92112-69-1	10 - <25%
2-Propanone	67-64-1	10 - <20%
Propane	74-98-6	10 - <20%
Butane	106-97-8	10 - <20%
White mineral oil (petroleum)	8042-47-5	1 - <5%
Limestone	1317-65-3	0.1 - <1%
Cyclohexane	110-82-7	0.1 - <1%
Heptane	142-82-5	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4 — FIRST AID MEASURES

Inhalation	Remove victim to fresh.
Skin contact	Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
Eye contact	immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

SECTION 5 — FIRE FIGHTING MEASURES

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back.
Special protective equipment and precautions for firefighters
Special fire fighting procedures: No data available.
Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.
Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

SECTION 7 — HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.
Conditions for safe storage, including any incompatibilities: Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

SECTION 8 — EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters
Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Hexane	TWA	50 ppm 180 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	500 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	REL	50 ppm 180 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm	US. ACGIH Threshold Limit Values (2008)
2-Propanone	STEL	1,000 ppm 2,400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	1,000 ppm 2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	250 ppm	US. ACGIH Threshold Limit Values (03 2015)
	TWA	750 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	500 ppm	US. ACGIH Threshold Limit Values (03 2015)
	REL	250 ppm 590 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Propane	REL	1,000 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Butane	REL	800 ppm 1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm 1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
White mineral oil (petroleum) - Mist.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)

	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
White mineral oil (petroleum) - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values (01 2010)
Limestone - Total	REL		10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Limestone - Respirable.	REL		5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Limestone - Respirable fraction.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Limestone - Total dust.	PEL		15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA		15 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Limestone - Respirable fraction.	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Cyclohexane	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	300 ppm	1,050 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	300 ppm	1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	300 ppm	1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Heptane	TWA	400 ppm	1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	85 ppm	350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	400 ppm		US. ACGIH Threshold Limit Values (02 2012)
	STEL	500 ppm		US. ACGIH Threshold Limit Values (02 2012)
	Ceil_Time	440 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Phenol	TWA	5 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	5 ppm	19 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	Ceil_Time	15.6 ppm	60 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5 ppm	19 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	5 ppm	19 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Benzene, methyl-	STEL	150 ppm	560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Benzene, ethenyl-	REL	50 ppm	215 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm	215 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	100 ppm	425 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	40 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	100 ppm	425 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	Ceiling	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	600 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	2 ppm		US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2018)
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	125 ppm	545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (12 2010)
Benzene	REL	0.1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	25 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	TWA	10 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	50 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	5 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

	TWA	1 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	STEL	1 ppm		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Naphthalene	PEL	10 ppm	50 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10 ppm	50 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	10 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	15 ppm	75 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	10 ppm	50 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	15 ppm	75 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEL (03 2018)
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEL (03 2015)
Phenol (Phenol with hydrolysis: Sampling time: End of shift.)	250 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)
Benzene, ethenyl- (styrene: Sampling time: End of shift.)	40 µg/l (Urine)	ACGIH BEL (03 2015)
Benzene, ethenyl- (Mandelic acid plus phenylglyoxylic acid: Sampling time: End of shift.)	400 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL (02 2014)
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) 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. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection Hand Protection: No data available.

Other: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Avoid contact with eyes. Observe good industrial hygiene practices. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Physical state:	
Form:	Spray Aerosol
Color:	No data available.

Odor:	No data available.
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	Estimated 56.05 °C
Flash Point:	-104.44 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	Estimated 9.4 %(V)
Flammability limit - lower (%):	Estimated 2.2 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	2,275 - 3,654 hPa (20 °C)
Vapor density:	No data available.
Density:	Estimated 0.681 g/cm3
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	Estimated 328.85 °C
Decomposition temperature:	No data available.
Viscosity:	No data available.

SECTION 10 — STABILITY AND REACTIVITY

Reactivity: No data available.
Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No data available.
Conditions to avoid: Avoid heat or contamination.
Incompatible Materials: No data available.
Hazardous Decomposition Products: No data available.

SECTION 11 — TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.
Ingestion: No data available.
Symptoms related to the physical, chemical and toxicological characteristics
Inhalation: No data available.
Skin Contact: No data available.
Eye contact: No data available.
Ingestion: No data available.

Information on toxicological effects
Acute toxicity (list all possible routes of exposure)

Oral	
Product:	Not classified for acute toxicity based on available data.
Specified substance(s):	
Hexane	LD 50: > 2,000 mg/kg

2-Propanone	LD 50 (Rat): 5,800 mg/kg
White mineral oil (petroleum)	LD 50 (Rat): > 5,000 mg/kg
Limestone	LD 50: > 2,000 mg/kg
Cyclohexane	LD 50 (Rat): > 5,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Hexane	LD 50 (Rabbit): > 2,000 mg/kg
2-Propanone	LD 50 (Rabbit): > 7,426 mg/kg
White mineral oil (petroleum)	LD 50 (Rabbit): > 2,000 mg/kg
Limestone	LD 50: > 2,000 mg/kg
Cyclohexane	LD 50 (Rabbit): > 2,000 mg/kg
Heptane	LD 50 (Rabbit): > 2,000 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Hexane	LC 50 (Rat): > 31.86 mg/l LC 50: > 5 mg/l
2-Propanone	LC 50 (Rat): 50.1 mg/l LC 50: > 5 mg/l
Propane	LC 50: > 100 mg/l LC 50: > 100 mg/l
Butane	LC 50: > 100 mg/l LC 50: > 100 mg/l
White mineral oil (petroleum)	LC 50 (Rat): > 5 mg/l LC 50: > 20 mg/l
Limestone	LC 50: > 5 mg/l LC 50: > 20 mg/l
Cyclohexane	LC 50 (Rat): > 32,880 mg/m3
Heptane	LC 50 (Rat): > 29.29 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Hexane	NOAEL (Mouse(Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study LOAEL (Mouse(Male), Inhalation, 13 Weeks): 1,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Male), Inhalation, 16 Weeks): 3,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Mouse(Female), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study
2-Propanone	NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral Experimental result, Key study
Propane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Butane	LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study
White mineral oil (petroleum)	NOAEL (Rat(Female, Male), Oral, 90 d): >= 20,000 ppm(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal): 1,000 mg/kg Dermal Read-across from supporting substance (structural analogue or surrogate), Key study LOAEL (Rat(Female, Male), Inhalation): 210 mg/m3 Inhalation Experimental result, Key study

Cyclohexane	NOAEL (Rat(Female, Male), Inhalation, 13 - 18 Weeks): 7,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Mouse(Female, Male), Inhalation, 13 - 18 Weeks): 500 ppm(m) Inhalation Experimental result, Key study
Heptane	NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 Inhalation Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Hexane	Rabbit, 1 - 72 hrs: Not irritating
2-Propanone	Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant
White mineral oil (petroleum)	Rabbit, 24 - 72 hrs: Not irritating
Heptane	Rabbit, 24 - 72 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

2-Propanone Skin sensitization:, in vivo (Guinea pig): Non sensitising
White mineral oil (petroleum) Skin sensitization:, in vivo (Guinea pig): Non sensitising
Cyclohexane Skin sensitization:, in vivo (Guinea pig): Non sensitising
Heptane Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro Product: No data available.

In vivo Product: No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s):

Hexane Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

Hexane

Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

2-Propanone Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Cyclohexane Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Heptane Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s):

Hexane Inhalation - vapor: Nervous System - Category 2

Target Organs Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Hexane May be fatal if swallowed and enters airways.
Hexane, Branched And Linear May be fatal if swallowed and enters airways.
White mineral oil (petroleum) May be fatal if swallowed and enters airways.
Cyclohexane May be fatal if swallowed and enters airways.
Heptane May be fatal if swallowed and enters airways.

SECTION 12 — ECOLOGICAL INFORMATION

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Hexane	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2.101 - 2.981 mg/l Mortality
2-Propanone	LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Cyclohexane	LC 50 (Pimephales promelas, 96 h): 4.53 mg/l Experimental result, Key study
Heptane	LC 50 (Mozambique tilapia (Tilapia mossambica), 96 h): 375 mg/l Mortality
White mineral oil (petroleum)	NOAEL (Oncorhynchus mykiss, 96 h): >= 100 mg/l Experimental result, Key study LL 50 (Oncorhynchus mykiss, 96 h): > 100 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Hexane	EC 50 (Daphnia magna, 48 h): 21.85 mg/l QSAR QSAR, Key study LC 50 (Water flea (Daphnia magna), 24 h): > 50 mg/l Mortality
Hexane, Branched And Linear	EC 50 (48 h): < 100 mg/l Estimated
2-Propanone	LC 50 (Daphnia pulex, 48 h): 8,800 mg/l Experimental result, Key study
Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Cyclohexane	EC 50 (Daphnia magna, 48 h): 0.9 mg/l Experimental result, Key study
Heptane	EC 50 (Daphnia magna, 48 h): 1.5 mg/l Experimental result, Key study
White mineral oil (petroleum)	NOAEL (Daphnia magna, 48 h): >= 100 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Hexane	NOAEL (Oncorhynchus mykiss): 2.8 mg/l QSAR QSAR, Key study
White mineral oil (petroleum)	NOAEL (Oncorhynchus mykiss): >= 1,000 mg/l QSAR QSAR, Supporting study
Heptane	NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Hexane	NOAEL (Daphnia magna): 4.888 mg/l QSAR QSAR, Key study
2-Propanone	LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study NOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
White mineral oil (petroleum)	NOAEL (Daphnia magna): >= 1,000 mg/l QSAR QSAR, Supporting study

Heptane	NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study EC 50 (Daphnia magna): 0.23 mg/l Read-across based on grouping of substances (category approach), Key study

Toxicity to Aquatic Plants
Product: No data available**.**
Persistence and Degradability
Biodegradation
Product: No data available.
Specified substance(s):

Hexane 81 % Detected in water. Read-across based on grouping of substances (category approach), Key study
2-Propanone 90.9 % (28 d) Detected in water. Experimental result, Key study
Propane 100 % (385.5 h) Detected in water. Experimental result, Key study, 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Butane 100 % (385.5 h) Detected in water. Experimental result, Key study
White mineral oil (petroleum) 31 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Supporting study
Cyclohexane 77 % (28 d) Detected in water. Experimental result, Key study
Heptane 70 % Detected in water. Experimental result, Key study

BOD/COD Ratio Product: No data available.
Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.
Specified substance(s):

Hexane Pimephales promelas, Bioconcentration Factor (BCF): 501.19 Aquatic sediment QSAR, Key study
2-Propanone Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified
Cyclohexane Cyprinus carpio, Bioconcentration Factor (BCF): 37 - 129 Aquatic sediment Experimental result, Supporting study
Heptane Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.
Mobility in soil: No data available.
Known or predicted distribution to environmental compartments

Hexane	No data available.
Hexane, Branched And Linear	No data available.
2-Propanone	No data available.
Propane	No data available.
Butane	No data available.
White mineral oil (petroleum)	No data available.
Limestone	No data available.
Cyclohexane	No data available.
Heptane	No data available.

Other adverse effects: Toxic to aquatic organisms. Harmful to aquatic life with long lasting effects.

SECTION 13 — DISPOSAL CONSIDERATIONS

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.
Contaminated Packaging: No data available.

SECTION 14 — TRANSPORT INFORMATION

DOT

UN number UN1950

UN proper shipping name Aerosols, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) None
Packing group II
Marine Pollutant Not applicable
Environmental Hazards: No
Special precautions for user: Not regulated.

IMDG
UN number UN1950
UN proper shipping name AEROSOLS
Transport hazard class(es)
Class 2
Label(s) -
EmS No.: F-D, S-U
Packing group Not applicable
Environmental hazards Yes
Marine pollutant No
Special precautions Not regulated

IATA
UN Number: UN 1950
Proper Shipping Name: Aerosols, flammable
Transport Hazard Class(es):
Class: 2.1
Label(s): –
Packing Group: –
Environmental Hazards: Yes
Marine Pollutant No
Special precautions for user: Not regulated.
Cargo aircraft only: Allowed.

SECTION 15 — REGULATORY INFORMATION

US Federal Regulations
Restrictions on use: Not known.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Chemical Identity	OSHA hazard(s)
Benzene	Flammability, Cancer, Aspiration, Eye, Blood, Skin, respiratory tract irritation, Central nervous system

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Hexane	lbs. 5000
2-Propanone	lbs. 5000
Propane	lbs. 100
Butane	lbs. 100
Cyclopentane, methyl-	lbs. 100
Methane, 1,1'-oxybis-	lbs. 100
Cyclohexane	lbs. 1000
Heptane	lbs. 100
Phenol	lbs. 1000

Benzene, methyl-	lbs. 1000
Benzene, ethenyl-	lbs. 1000
Benzene, ethyl-	lbs. 1000
Benzene	lbs. 10
Naphthalene	lbs. 100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Flammable aerosol
Skin Corrosion/Irritation
Serious Eye Damage/Eye Irritation
Skin sensitizer
Toxic to reproduction
Specific Target Organ Toxicity - Single Exposure
Specific Target Organ Toxicity - Repeated Exposure
Aspiration Hazard

SARA 302 Extremely Hazardous Substance

Chemical Identity	Reportable quantity	Threshold Planning Quantity
Hexane		
2-Propanone		
Phenol	lbs. 1000	- -- -

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Hexane	lbs. 5000
2-Propanone	lbs. 5000
Propane	lbs. 100
Butane	lbs. 100
Cyclopentane, methyl-	lbs. 100
Methane, 1,1'-oxybis-	lbs. 100
Cyclohexane	lbs. 1000
Heptane	lbs. 100
Phenol	lbs. 1000
Benzene, methyl-	lbs. 1000
Benzene, ethenyl-	lbs. 1000
Benzene, ethyl-	lbs. 1000
Benzene	lbs. 10
Naphthalene	lbs. 100

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Phenol	lbs
Hexane	10000 lbs
Hexane, Branched And Linear	10000 lbs
2-Propanone	10000 lbs
Propane	10000 lbs
Butane	10000 lbs
White mineral oil (petroleum)	10000 lbs
Limestone	10000 lbs
Cyclohexane	10000 lbs
Heptane	10000 lbs
Benzene, methyl-	10000 lbs
Benzene, ethenyl-	10000 lbs
Benzene, ethyl-	10000 lbs
Benzene	10000 lbs
Naphthalene	10000 lbs

SARA 313 (TRI Reporting)

Chemical Identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
Hexane	lbs	lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65 This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Hexane	Male reproductive toxin. 12 2017
Benzene, methyl-	Developmental toxin. 03 2008
Benzene, ethenyl-	Carcinogenic. 04 2016
Benzene, ethyl-	Carcinogenic. 05 2011
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008
Naphthalene	Carcinogenic. 05 2011

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Hexane
2-Propanone
Propane
Butane
Cyclopentane, methyl-
Methane, 1,1'-oxybis-
White mineral oil (petroleum)

US. Massachusetts RTK - Substance List

Chemical Identity

Phenol

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Hexane
2-Propanone
Propane
Butane
Cyclopentane, methyl-
Methane, 1,1'-oxybis-
White mineral oil (petroleum)

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Hexane
2-Propanone

Stockholm convention

Hexane
2-Propanone

Rotterdam convention

Hexane
2-Propanone

Kyoto protocol

Inventory Status:

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory

EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.

SECTION 16 — OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Issue date	04/18/2018
Revision date	11/05/2019
Prepared by	Albatross USA Inc.
Telephone number	718-392-6272
.**Disclaimer**	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.
Revision information	Product and Company Identification: Alternate Trade Names