SAFETY DATA SHEET

1. Identification

Product identifier	**Spray-n-Bond LV (4369-85)**
Other means of identification	Not available.
Recommended use	Adhesive.
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Nu-Calgon
Address	2611 Schuetz Road St. Louis, MO 63043 United States
Telephone	314-469-7000 / 800-554-5499
E-mail	Not available.
Emergency phone number	1-800-424-9300 (CHEMTREC)
Supplier	See above.

2. Hazard identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
	Simple asphyxiants	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	

Label elements

Signal word	Danger
Hazard statement	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness.

Precautionary statement

Prevention	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. Wash thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing gas. Use only outdoors or in a well-ventilated area.
Response	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of container in accordance with local, regional, national and international regulations.

WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known

WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/Information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
1,3-butadiene, 2-methyl-, Homopolymer, Maleated		841251-34-1	1-5*
Acetone		67-64-1	10-30*
Benzene, 1-chloro-4(trifluoromethyl)-		98-56-6	1-5*
Butane		106-97-8	10-30*
Heptane		142-82-5	1-5*
Heptane, Branched, Cyclic And Linear		426260-76-6	5-10*
Methane, oxybis-		115-10-6	1-5*
Methyl acetate		79-20-9	5-10*
Naphtha (petroleum), hydrotreated light		64742-49-0	5-10*
Propane		74-98-6	10-30*
Solvent naphtha (petroleum), light aliphatic		64742-89-8	5-10*

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

Composition comments

US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin contact

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. Specific treatment (see information on this label).

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Ingestion

Rinse mouth. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.

Most important symptoms/effects, acute and delayed

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themself. Rash.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide. Alcohol resistant foam. Dry chemical powder.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Contents under pressure. Static charges generated by emptying package in or near flammable vapor may cause flash fire. Pressurized container may explode when exposed to heat or flame.

Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and storage

Precautions for safe handling	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 smoke while using or until sprayed surface is thoroughly dry. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not handle or store near an open flame, heat or other sources of ignition. Do not puncture, incinerate or crush. Store in a well-ventilated place. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Keep out of reach of children.

8. Exposure controls/Personal protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	1800 mg/m3 750 ppm
	TWA	1200 mg/m3 500 ppm
Butane (CAS 106-97-8)	TWA	1000 ppm
Heptane (CAS 142-82-5)	STEL	2050 mg/m3 500 ppm
	TWA	1640 mg/m3 400 ppm
Methyl acetate (CAS 79-20-9)	STEL	757 mg/m3

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
		250 ppm
	TWA	606 mg/m3
		200 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	1590 mg/m3
		400 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	TWA	1590 mg/m3
		400 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Butane (CAS 106-97-8)	STEL	1000 ppm
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Methane, oxybis- (CAS 115-10-6)	TWA	1000 ppm
Methyl acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Butane (CAS 106-97-8)	STEL	1000 ppm
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Methyl acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Butane (CAS 106-97-8)	STEL	1000 ppm
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Methyl acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2380 mg/m3
		1000 ppm
	TWA	1190 mg/m3
		500 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Heptane (CAS 142-82-5)	STEL	2050 mg/m3 500 ppm
	TWA	1640 mg/m3 400 ppm
Methyl acetate (CAS 79-20-9)	STEL	757 mg/m3 250 ppm
	TWA	606 mg/m3 200 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	1590 mg/m3 400 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	TWA	1590 mg/m3 400 ppm

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
Acetone (CAS 67-64-1)	15 minute	750 ppm
	8 hour	500 ppm
Butane (CAS 106-97-8)	15 minute	1250 ppm
	8 hour	1000 ppm
Heptane (CAS 142-82-5)	15 minute	500 ppm
	8 hour	400 ppm
Methyl acetate (CAS 79-20-9)	15 minute	250 ppm
	8 hour	200 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	15 minute	500 ppm
	8 hour	400 ppm
Propane (CAS 74-98-6)	15 minute	1250 ppm
	8 hour	1000 ppm
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	15 minute	500 ppm
	8 hour	400 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm
Heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm
Methyl acetate (CAS 79-20-9)	PEL	610 mg/m3 200 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m3 100 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	PEL	400 mg/m3
		100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Butane (CAS 106-97-8)	STEL	1000 ppm
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Methyl acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m3 250 ppm
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3 440 ppm
	TWA	350 mg/m3 85 ppm
Methyl acetate (CAS 79-20-9)	STEL	760 mg/m3 250 ppm
	TWA	610 mg/m3 200 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	400 mg/m3 100 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	TWA	400 mg/m3 100 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Methane, oxybis- (CAS 115-10-6)	TWA	1880 mg/m3 1000 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/L	Acetone	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

Canada - Alberta OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.

Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Toluene (CAS 108-88-3)	Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Benzene (CAS 71-43-2)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Cumene (CAS 98-82-8)	Can be absorbed through the skin.

Appropriate engineering controls 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.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection Impervious gloves. Confirm with reputable supplier first.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. When using do not eat or drink.

9. Physical and chemical properties

Appearance	Clear
Physical state	Gas.
Form	Spray
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	152.69 °F (67.05 °C) (estimated)
Pour point	Not available.
Specific gravity	0.884 (estimated)
Partition coefficient (n-octanol/water)	Not available.
Flash point	-156.0 °F (-104.4 °C) (Propellant) (estimated)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	> 2.2 (estimated)

Flammability limit - upper (%)	< 11.4 (estimated)
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	45 - 65 psig @ 70°F (estimated)
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Strong oxidizing agents. Nitrates. Fluorine. Chlorine.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May cause stomach distress, nausea or vomiting.
Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Asphyxiation may bring about unconsciousness without warning and so rapidly that victim may be unable to protect themself. Rash.
Information on toxicological effects	
Acute toxicity	Narcotic effects. May cause an allergic skin reaction. asphyxia

Components	**Species**	**Test Results**
1,3-butadiene, 2-methyl-, Homopolymer, Maleated (CAS 841251-34-1)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Not available	
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	> 15800 mg/kg, Health Canada (HSA)
Inhalation		
LC50	Rat	76 mg/l/4h, Health Canada (HSA)

Components	Species	Test Results
Oral		
LD50	Rat	5800 mg/kg, Health Canada (HSA)
Benzene, 1-chloro-4(trifluoromethyl)- (CAS 98-56-6)		
Acute		
Dermal		
LD50	Rabbit	0.1 ml/kg, 24 Hours, ECHA
	Rat	1.1 - 1.4 ml/kg, ECHA
		0.5 - 1 ml/kg, ECHA
Inhalation		
LC50	Mouse	200 ppm, 4 Hours, ECHA
	Rat	220 ppm, 4 Hours, ECHA
		33 mg/l/4h, HSDB
Oral		
LD50	Mouse	11500 mg/kg, HSDB
	Rat	> 2000 mg/kg, ECHA
		13000 mg/kg, HSDB
		382 mg/kg, ECHA
		1.4 ml/kg, ECHA
Butane (CAS 106-97-8)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Mouse	539600 ppm, 120 Minutes, ECHA
		520400 ppm, 120 Minutes, ECHA
	Rat	> 800000 ppm, 10 Minutes, ECHA
		1442738 mg/m3, 15 Minutes, ECHA
		1443 mg/L, 15 Minutes, ECHA
Oral		
LD50	Not available	
Heptane (CAS 142-82-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours, HCHA
Inhalation		
LC50	Rat	> 73.5 mg/L, 4 Hours, ECHA
		> 29.3 mg/L, 4 Hours, ECHA
		103 mg/L, 4 Hours, HSDB
Oral		
LD50	Rat	> 5000 mg/kg, ECHA
Heptane, Branched, Cyclic And Linear (CAS 426260-76-6)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Not available	
Methane, oxybis- (CAS 115-10-6)		
Acute		
Dermal		
LD50	Not available	

Components	Species	Test Results
Inhalation		
LC50	Rat	309018 mg/m³, 4 hours, ECHA
		164000 ppm, 4 Hours, ECHA/HSDB
		308.5 mg/L, 4 Hours, HSDB
Oral		
LD50	Not available	
Methyl acetate (CAS 79-20-9)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Rat	16000 - 32000 ppm, 4 Hours, Smyth, Jr., H.F., et al. Range-finding toxicity data: list VI. American Industrial Hygiene Association Journal. Vol. 23 (1962). p. 95-107
Oral		
LD50	Rabbit	3705 mg/kg, Industrial Medicine and Surgery. (Northbrook, IL) V.18-42, 1949-73. For publisher information, see IOHSA5. (41,31,1972). [RTECS]
	Rat	6482 mg/kg, ECHA
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Rat	> 5610 mg/m3, 4 Hours, ECHA
Oral		
LD50	Rat	> 5000 mg/kg, ECHA
Propane (CAS 74-98-6)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	1442738 mg/m3, 15 Minutes, ECHA
		1443 mg/L, 15 Minutes, ECHA
Oral		
LD50	Not available	
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, ECHA
Inhalation		
LC50	Rat	> 5610 mg/m3, 4 Hours, ECHA
Oral		
LD50	Rat	> 5000 mg/kg, ECHA

Skin corrosion/irritation	Causes skin irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Causes serious eye irritation.
Corneal opacity value	Not available.
Iris lesion value	Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity See below.
Contains < 3% (w/w) DMSO-extract

ACGIH Carcinogens

Benzene (CAS 71-43-2)	A1 Confirmed human carcinogen.
Ethylbenzene (CAS 100-41-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Naphthalene (CAS 91-20-3)	A3 Confirmed animal carcinogen with unknown relevance to humans.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Naphthalene (CAS 91-20-3)

Canada - Alberta OELs: Carcinogen category

Benzene (CAS 71-43-2)	Confirmed human carcinogen.

Canada - Manitoba OELs: carcinogenicity

Benzene (CAS 71-43-2)	Confirmed human carcinogen.
Ethylbenzene (CAS 100-41-4)	Confirmed animal carcinogen with unknown relevance to humans.
Naphthalene (CAS 91-20-3)	Confirmed animal carcinogen with unknown relevance to humans.

Canada - Quebec OELs: Carcinogen category

Benzene (CAS 71-43-2)	Detected carcinogenic effect in humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzene (CAS 71-43-2)	Volume 29, Supplement 7, Volume 100F, Volume 120 - 1 Carcinogenic to humans.
Cumene (CAS 98-82-8)	Volume 101 - 2B Possibly carcinogenic to humans.
Ethylbenzene (CAS 100-41-4)	Volume 77 - 2B Possibly carcinogenic to humans.
Naphthalene (CAS 91-20-3)	Volume 82 - 2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	Volume 47, Volume 71 - 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Benzene (CAS 71-43-2)	Cancer

US NTP Report on Carcinogens: Anticipated carcinogen

Cumene (CAS 98-82-8)	Reasonably Anticipated to be a Human Carcinogen.
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

US NTP Report on Carcinogens: Known carcinogen

Benzene (CAS 71-43-2)	Known To Be Human Carcinogen.
Naphthalene (CAS 91-20-3)	Known To Be Human Carcinogen.

Reproductive toxicity Not classified.

Teratogenicity Not available.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Crustacea	EC50	Daphnia	13999 mg/L, 48 Hours

Components		Species	Test Results
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/L, 96 hours
Benzene, 1-chloro-4(trifluoromethyl)- (CAS 98-56-6)			
Crustacea	EC50	Daphnia	3.68 mg/L, 48 Hours
Heptane (CAS 142-82-5)			
Aquatic			
Fish	LC50	Mozambique tilapia (Tilapia mossambica)	375 mg/L, 96 hours
Methyl acetate (CAS 79-20-9)			
Algae	IC50	Algae	120 mg/L, 72 hours
Crustacea	EC50	Daphnia	1026.7 mg/L, 48 hours
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	295 - 348 mg/L, 96 hours
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/L, 96 hours
			8.8 mg/L, 96 hours
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)			
Algae	IC50	Algae	4700 mg/L, 72 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/L, 96 hours
			8.8 mg/L, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil No data available.

Mobility in general Not available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

Transport of Dangerous Goods (TDG) Proof of Classification Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN1950

Proper shipping name Aerosols, flammable, (each not exceeding 1 L capacity)

Hazard class Limited Quantity - US

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN1950

Proper shipping name AEROSOLS, flammable

Hazard class Limited Quantity - Canada

IATA/ICAO (Air)

Basic shipping requirements:

UN number UN1950

Proper shipping name Aerosols, flammable

Hazard class Limited Quantity - IATA

IMDG (Marine Transport)

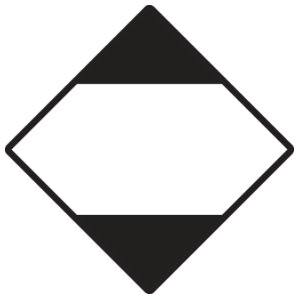
Basic shipping requirements:

UN number UN1950

Proper shipping name AEROSOLS

Hazard class Limited Quantity - IMDG

DOT; IMDG; TDG



IATA

15. Regulatory information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada CEPA Schedule I: Listed substance

Benzene (CAS 71-43-2)	Listed.
Naphthalene (CAS 91-20-3)	Listed.

Canada DSL Challenge Substances: Listed substance

Butane (CAS 106-97-8)	Listed.
Naphthalene (CAS 91-20-3)	Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Benzene (CAS 71-43-2)	1 TONNES
Butane (CAS 106-97-8)	1 TONNES
Heptane (CAS 142-82-5)	1 TONNES
Methane, oxybis- (CAS 115-10-6)	1 TONNES
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	1 TONNES
Propane (CAS 74-98-6)	1 TONNES
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	1 TONNES
Toluene (CAS 108-88-3)	1 TONNES

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Acetone (CAS 67-64-1)	Class B

Toluene (CAS 108-88-3)	Class B

WHMIS 2015 Exemptions Not applicable

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Benzene, 1-chloro-4(trifluoromethyl)- (CAS 98-56-6)	1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	Listed.
Benzene (CAS 71-43-2)	Listed.
Butane (CAS 106-97-8)	Listed.
Cumene (CAS 98-82-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Heptane (CAS 142-82-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Methyl acetate (CAS 79-20-9)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Propane (CAS 74-98-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Benzene (CAS 71-43-2)	Cancer Central nervous system Blood Aspiration Skin Eye respiratory tract irritation Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	Yes
Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Gas under pressure Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitization Specific target organ toxicity (single or repeated exposure) Simple asphyxiant

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Solvent naphtha (petroleum), light aliphatic	64742-89-8	5-10*

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Benzene (CAS 71-43-2)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Naphthalene (CAS 91-20-3)
Toluene (CAS 108-88-3)

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

Butane (CAS 106-97-8)
Methane, oxybis- (CAS 115-10-6)
Propane (CAS 74-98-6)

US state regulations See below

US - California Hazardous Substances (Director's): Listed substance

Acetone (CAS 67-64-1)	Listed.
Benzene (CAS 71-43-2)	Listed.
Butane (CAS 106-97-8)	Listed.
Cumene (CAS 98-82-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Heptane (CAS 142-82-5)	Listed.
Methyl acetate (CAS 79-20-9)	Listed.

Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Illinois Chemical Safety Act: Listed substance

Acetone (CAS 67-64-1)
Benzene (CAS 71-43-2)
Butane (CAS 106-97-8)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Heptane (CAS 142-82-5)
Methane, oxybis- (CAS 115-10-6)
Methyl acetate (CAS 79-20-9)
Naphthalene (CAS 91-20-3)
Propane (CAS 74-98-6)
Toluene (CAS 108-88-3)

US - Louisiana Spill Reporting: Listed substance

Acetone (CAS 67-64-1)	Listed.
Benzene (CAS 71-43-2)	Listed.
Butane (CAS 106-97-8)	Listed.
Cumene (CAS 98-82-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Heptane (CAS 142-82-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Methyl acetate (CAS 79-20-9)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Propane (CAS 74-98-6)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Michigan Critical Materials Register: Parameter number

Benzene (CAS 71-43-2)
Toluene (CAS 108-88-3)

US - Minnesota Haz Subs: Listed substance

Acetone (CAS 67-64-1)	Listed.
Benzene (CAS 71-43-2)	Listed.
Butane (CAS 106-97-8)	Listed.
Cumene (CAS 98-82-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Heptane (CAS 142-82-5)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Methyl acetate (CAS 79-20-9)	Listed.
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Propane (CAS 74-98-6)	Listed.
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - North Carolina Toxic Air Pollutants: Listed substance

Benzene (CAS 71-43-2)
Toluene (CAS 108-88-3)

US - Texas Effects Screening Levels Hazard Data: Simple asphyxiant

Propane (CAS 74-98-6)

US - Texas Effects Screening Levels: Listed substance

Acetone (CAS 67-64-1)	Listed.
Benzene (CAS 71-43-2)	Listed.
Benzene, 1-chloro-4(trifluoromethyl)- (CAS 98-56-6)	Listed.
Butane (CAS 106-97-8)	Listed.
Cumene (CAS 98-82-8)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Heptane (CAS 142-82-5)	Listed.
Heptane, Branched, Cyclic And Linear (CAS 426260-76-6)	Listed.
Methane, oxybis- (CAS 115-10-6)	Listed.
Methyl acetate (CAS 79-20-9)	Listed.
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	Listed.

Naphthalene (CAS 91-20-3)	Listed.
Propane (CAS 74-98-6)	Listed.
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Washington Chemical of High Concern to Children: Listed substance

Benzene (CAS 71-43-2)
Ethylbenzene (CAS 100-41-4)
Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Benzene (CAS 71-43-2)
Butane (CAS 106-97-8)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Heptane (CAS 142-82-5)
Methane, oxybis- (CAS 115-10-6)
Methyl acetate (CAS 79-20-9)
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
Naphthalene (CAS 91-20-3)
Propane (CAS 74-98-6)
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)
Toluene (CAS 108-88-3)

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

Acetone (CAS 67-64-1)
Benzene (CAS 71-43-2)
Benzene, 1-chloro-4(trifluoromethyl)- (CAS 98-56-6)
Butane (CAS 106-97-8)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Heptane (CAS 142-82-5)
Methane, oxybis- (CAS 115-10-6)
Methyl acetate (CAS 79-20-9)
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
Naphthalene (CAS 91-20-3)
Propane (CAS 74-98-6)
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)
Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Benzene (CAS 71-43-2)
Butane (CAS 106-97-8)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Heptane (CAS 142-82-5)
Methane, oxybis- (CAS 115-10-6)
Methyl acetate (CAS 79-20-9)
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
Naphthalene (CAS 91-20-3)
Propane (CAS 74-98-6)
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)
Toluene (CAS 108-88-3)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Benzene (CAS 71-43-2)
Butane (CAS 106-97-8)
Cumene (CAS 98-82-8)
Ethylbenzene (CAS 100-41-4)
Heptane (CAS 142-82-5)
Methane, oxybis- (CAS 115-10-6)
Methyl acetate (CAS 79-20-9)
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
Naphthalene (CAS 91-20-3)
Propane (CAS 74-98-6)
Solvent naphtha (petroleum), light aliphatic (CAS 64742-89-8)
Toluene (CAS 108-88-3)

US. California Proposition 65

WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987
Cumene (CAS 98-82-8)	Listed: April 6, 2010
Ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004
Naphthalene (CAS 91-20-3)	Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997
Toluene (CAS 108-88-3)	Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997

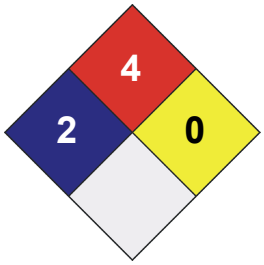
Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0



Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 21-April-2020

Version # 03

Effective date 21-April-2020

Prepared by Nu-Calgon Technical Service Phone: (314) 469-7000

Further information Not available.

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.