



1. Identification

Product identifier	S-200
Product code	AES200373GDZ
Other means of identification	S-200 aerosol. This SDS sheet is not for the product in liquid format.
Recommended use of the chemical and restrictions on use	Silicone grease lubricant.
Manufacturer	<p>AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada Tel. 514-630-2800 General Information: 1-888-592-5837 Fax 514-630-2828 www.aerochem.ca</p>
Emergency phone number	<p>Quebec Poison Center: 1-800-463-5060 (toll free in QC) Ontario and Manitoba Poison Centres: 1-800-268-9017 or 419-813-5900 BC Drug and Poison Information Centre: 1-800-567-8911 (toll free in BC) or contact your local poison control centre in the state/province or territory where you live. INFOTRAC® 1-800-535-5053. International call collect: 1-352-323-3500 24 hours/day, 7 days/week.</p>

2. Hazard identification

Summary	<p>FLAMMABLE AEROSOL! Content under pressure, do not puncture, cut, heat or throw container into the flames. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves, respiratory protection and other protective clothing that are adapted to the task being performed and the risks involved.</p>
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WHMIS 2015/OSHA HCS 2012/GHS



Flammable aerosols (Category 1)
 Skin corrosion/irritation (Category 2)
 Serious eye damage/eye irritation (Category 2)
 Specific target organ toxicity, single exposure, Narcotic effects (Category 3)

Other hazards which do not result in classification :

Acute hazard to the aquatic environment (Category 1).
 Long-term hazard to the aquatic environment (Category 1).

DANGER

H222: Extremely flammable aerosol
 H229: Pressurized container: may burst if heated
 H319: Causes serious eye irritation
 H315: Causes skin irritation
 H336: May cause drowsiness or dizziness
 H410: Very toxic to aquatic life with long lasting effects
 P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.

P211: Do not spray on an open flame or other ignition source.
 P251: Do not pierce or burn, even after use.
 P261: Avoid breathing vapours, mist and spray.
 P264: Wash skin thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release to the environment.
 P280: Wear gloves and eye protection.
 P302+352: IF ON SKIN: Wash with soap and water.
 P332+313: If skin irritation occurs: Get medical advice or attention.
 P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.
 P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P337+313: If eye irritation persists: Get medical advice or attention.
 P362+364: Take off contaminated clothing and wash before reuse.
 P391: Collect spillage.
 P403: Store in a well-ventilated place.
 P405: Store locked up.
 P410+412: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 P501: Dispose of contents and container to an approved waste disposal plant.

3. Composition/information on ingredients

Common name	CAS	Weight % content
n-Heptane	142-82-5	40 - 50 %
Propane	74-98-6	20 - 25 %
Polydimethylsiloxanes	63148-62-9	9 - 12 %
Isobutane	75-28-5	7 - 13 %
Acetone	67-64-1	5 %
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	5 %

4. First-aid measures

Inhalation	Move person to fresh air. If a problem develops or persists, seek medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel.
Skin contact	Wash skin with warm water and mild soap. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY! Flush with water for at least 15 minutes. Remove contact lenses. Hold eyelids apart to rinse properly. If irritation persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water. Seek medical attention or contact a Poison Centre immediately.
Other	No additional information.
Symptoms	May cause eye irritation. May cause dry skin, itching and irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.
Notes to the physician	Apply a symptomatic and supportive treatment. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemicals, water spray, chemical foam, carbon dioxide (CO ₂). Do not use a heavy water jet.
Specific hazards arising from the chemical	Flammable aerosol. Content under pressure, containers may explode under fire conditions. Emits toxic and irritating fumes under fire conditions. Vapours are heavier than air and may travel to an ignition source distant from the material handling point.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Use water spray to cool fire-exposed containers. Water spray can reduce the intensity of the flames. However, the water jets can spread the fire. Product floating on water can travel to an ignition source and spread the fire. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures


Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate the area well. Remove sources of ignition. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Finish cleaning the contaminated surface by rinsing with soapy water. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Content under pressure, do not puncture, cut, heat or throw container into the flames. Keep away from heat and open flame. Use only in well ventilated area. Do not breathe vapours, mists or aerosols. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves, respiratory protection and other protective clothing that are adapted to the task being performed and the risks involved. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat. Protect from frost.
Storage temperature	0 to 50 °C (32 to 122 °F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Acetone: 2500 ppm. n-Heptane : 750 ppm. Propane : 2100 ppm. Isobutane: 1800 ppm.
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n-Heptane	STEL	500 ppm		ACGIH , BC, ON
		500 ppm	2050 mg/m ³	RSST
Propane	TWA (8h)	400 ppm		ACGIH , BC, ON
		400 ppm	1640 mg/m ³	RSST
Isobutane	TWA (8h)	1000 ppm		ACGIH , BC, ON
		1000 ppm	1800 mg/m ³	RSST
Naphtha (petroleum), hydrotreated heavy (C6-C13)	Ceiling	1000 ppm		ACGIH
	TWA (8h)	800 ppm		ON
Acetone	TWA (8h)	Mist	5 mg/m ³	ACGIH , RSST
		175 ppm	1200 mg/m ³	Other
Acetone	STEL	300 ppm		OSHA
		500 ppm		ACGIH , BC
		750 ppm		ON
		1000 ppm	2380 mg/m ³	RSST
		250 ppm		ACGIH , BC
Acetone	TWA (8h)	500 ppm		ON
		500 ppm	1190 mg/m ³	RSST
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.			
Individual protection measures				
Eye	Wear safety glasses. If there is a risk of contact with eyes, wear chemical splash goggles.			
Hands	If any risk of skin contact wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.			
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code.			
Respiratory	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA.			
Feet	No personal protection measure required.			
 Safety glasses Nitrile gloves				

9. Physical and chemical properties

Physical state	Aerosol (liquid)	Flammability	Flammable
Colour	Clear blue	Flammability limits	1 to 12.8%
Odour	Characteristic	Flash point	-18 °C (-0.4 °F)
Odour threshold	N.Dis	Auto-ignition temperature	465 °C (869 °F)
pH	N/Ap.	Sensibility to electrostatic charges	No

Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	>1 (Air = 1)
Boiling point	57 to 200 °C (134.6 to 392 °F)	Relative density	0.75 to 0.78 kg/L (Water = 1)
Solubility	Partially soluble in water (<10%)	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	> Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	410.26 to 379.21kPa (3077 to 2844.1 mm Hg)	Viscosity	350 cSt
Percent Volatile	90%	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Available Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available for this product.
Chemical stability	Stable under recommended storage conditions. Aerosol containers are unstable at temperatures above 49 °C.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Keep away from heat and open flame. Avoid temperatures over 49 °C. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizing agents (e.g. nitric acid, perchloric acid, peroxides, nitrates, chlorates and perchlorates).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	n-Heptane	Ingestion >15000 mg/kg	Rat	LD50
		Inhalation 103 mg/l/4h	Rat	LC50
		Skin >2000 mg/kg	Rabbit	LD50
	Propane	Inhalation 240000 ppm/4h	Rat	LC50
	Polydimethylsiloxanes	Ingestion >17000 mg/kg	Rat	LD50
		Inhalation >400 mg/l/4h	Rabbit	LC50
		Skin >10200 mg/kg	Rabbit	LD50
	Isobutane	Inhalation 276000 ppm/4h	Rat	LC50
		658 mg/l/4h	Rat	LC50
	Acetone	Ingestion 5800 mg/kg	Rat	LD50
		Inhalation 71.4 mg/l/4h	Rat	LC50
		Skin 15800 mg/kg	Rabbit	LD50
	Naphtha (petroleum), hydrotreated heavy (C6-C13)	Ingestion >10000 mg/kg	Rat	LD50
Inhalation >8.5 mg/l/4h		Rat	LC50	
Skin >3200 mg/kg		Rabbit	LD50	
Likely routes of exposure	Skin, eyes, inhalation, ingestion.			

Delayed, immediate and chronic effects	Eye contact	May cause eye irritation. Acetone causes eye irritation in rabbits (Draize test, OECD 405).
	Skin contact	May cause skin irritation. Prolonged or repeated contact may cause defatting dermatitis. n-Heptane is irritating to the skin (rabbit, OECD 404). Acetone is not irritating to the skin (OECD 404).
	Inhalation	May cause respiratory tract irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions.
	Ingestion	May cause headaches, nausea, vomiting and weakness.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	IARC/NTP Classification	No ingredients listed.
	Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.
	Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.
	Reproductive toxicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.
Specific target organ toxicity - single exposure	Central nervous system.	
Specific target organ toxicity - repeated exposure	No target organ is listed.	
Interactive effects	No information available.	
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. These values are not classified according to WHMIS 2015 and OSHA HCS 2012. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS.	

12. Ecological information

Ecological toxicity	<p>Fish - <i>Oncorhynchus mykiss</i> - Rainbow trout LC50 4740 mg/L; 96 h (acetone)</p> <p>Aquatic Invertebrate - <i>Daphnia magna</i> EC50 12600-12700 mg/L; 48 h (acetone)</p> <p>Goldfish - <i>Carassius auratus</i> LC50 4 mg/L; 24h (n-Heptane)</p> <p>Fish - <i>Pimephales promelas</i> - Fresh water LC50 8.2 mg/L; 96 h (64742-48-9)</p> <p>Aquatic Invertebrate - <i>Daphnia magna</i> EC50 4.5 mg/L; 48 h (64742-48-9) OECD 202</p> <p>Aquatic Invertebrate - Crustaceans, <i>Mysidopsis bahia</i> EC50 0.1 mg/L; 96h (n-heptane)</p>
Persistence	Contains an or many ingredients that may be persistent in aquatic environment.
Degradability	N-Heptane is readily biodegradable at 70% in 10 days. Naphtha (petroleum), hydrotreated heavy (C6-C13) (CAS no 64742-48-9) is expected to biodegrade only very slowly in the environment (10% in 28 days, OECD 301D). Acetone is readily biodegradable at 91% in 28 days (OECD 301B).
Bioaccumulative potential	Naphtha (petroleum), hydrotreated heavy (CAS no 64742-48-9) has Log Kow values ranging from 2.1 to 6.5 and Bioconcentration Factor (BCF) of >3000 for the oil mixture. These values indicate a high degree of bioaccumulation. Acetone has a Bioconcentration Factor (BCF) of 0.65 and a partition factor Log Kow of -0.24, indicating no bioaccumulation. n-Heptane has an estimated bioconcentration factor (BCF) 550 calculated in fish, using a partition factor Log Kow of 4.66, which suggest that the potential for bioconcentration in aquatic organisms is high (TOXNET).
Mobility in soil	The product is a hydrocarbon mixture of which some ingredients can evaporate into the air while others present a medium to low mobility in soil. Acetone evaporates very rapidly from dry soil surfaces. It is very soluble in water and it is expected to have very high mobility in soil with no adsorption to sediment. The estimated Koc value of 240 suggests that n-heptane is expected to have moderate mobility in soil

(TOXNET).

Other adverse effects

This chemical does not deplete the ozone layer.


13. Disposal considerations

Container



Important! Prevent waste generation. Use in full. DO NOT puncture, cut, heat or burn container, even after use. DO NOT dispose residue in sewers, streams or drinking water supply. Depressurize empty container (empty it of its propellant). Empty containers can be treated (recycled) wherever there is a recovery program. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

14. Transport information

UN Number	UN 1950
UN Proper Shipping Name	AEROSOLS
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	Permit required for transportation with proper placards displayed on vehicle. Exemption available: LTD QTY according to TDG Canada - art. 1.17; Mode of transportation: rail, sea and road, applicable for Canadian domestic shipments. Quantitative limits: applicable for aerosol cans containing =< 1L each.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 2.1
Packing group	
Emergency response guidebook 2012	126
IMO/IMDG - International Maritime Transport	
Classification	UN 1950. AEROSOLS. Class 2.1 Emergency schedules (EmS-No) F-D, S-U
IATA - International Air Transport Association	
Classification	UN 1950. FLAMMABLE AEROSOLS. Class 2.1
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
n-Heptane	142-82-5	X	X		X
Propane	74-98-6	X	X		X
Polydimethylsiloxanes	63148-62-9		X		
Isobutane	75-28-5	X	X		X
Acetone	67-64-1		X		

Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	X	X		X
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- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
n-Heptane	142-82-5	X								
Propane	74-98-6	X						X		
Polydimethylsiloxanes	63148-62-9	X								
Isobutane	75-28-5	X						X		
Acetone	67-64-1	X	X	X		X				
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations

WHMIS 1988



B5

D2B

Class B5 : Flammable Aerosol

Class D2B : Toxic material causing other toxic effects

HMIS



② Health

③ Flammability

① Reactivity

ⓑ Protective Equipment

NFPA



16. Other information

Date
(YYYY-MM-DD)

AEROCHEM Inc. 2016-02-08

Version	01
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html - OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx - IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), http://www.inchem.org - Database, Institut National de Recherche et de Sécurité, http://www.inrs.fr/accueil/produits/bdd.html <p>ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association HMIS: Hazardous Materials Identification System NFPA: National Fire Protection Association OSHA: Occupational Safety and Health Administration (USA) NIOSH: National Institute for Occupational Safety and Health NTP: National Toxicology Program RSST: Règlement sur la santé et la sécurité du travail (Québec) GHS: Globally Harmonized System IARC: International Agency for Research on Cancer IDLH: Immediately Dangerous to Life or Health STEL: Short Term Exposure Limit (15 min) TWA: Time Weighted Averages WHMIS: Workplace Hazardous Materials Information System</p>
Powered by  A global vision of prevention	<p>To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System 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.</p>