

Safety Data Sheet

AEROGRAF



AEROCHEM

1. Identification

Product identifier	AEROGRAF
Product code	AEGRAF300GDZ
Other means of identification	Dry graphite lubricant.
Recommended use of the chemical and restrictions on use	Lubricant for dusty environment. Not recommended for any other use not detailed on product data sheet or label.
Manufacturer	<p>AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada</p> <p>General Information: 1-888-592-5837</p> <p>www.aerochem.ca info@aerochem.ca</p>
Emergency phone number	<p>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. Keep away from heat and open flame. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.</p>
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WHMIS 2015/GHS/OSHA HCS 2012

	<p>Flammable aerosols (Category 1) Skin corrosion/irritation (Category 2) Serious eye damage/eye irritation (Category 2) Reproductive toxicity (Category 2) Specific target organ toxicity, single exposure (Category 3) Specific target organ toxicity, repeated exposure (Category 2)</p>
<p>DANGER</p> <p>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 H361D: Suspected of damaging the unborn child H373: May cause damage to organs through prolonged or repeated exposure P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat, sparks, open flames and 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. P260: Do not breathe vapours and spray.</p>	

P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves, protective clothing and eye protection.
 P302+352: IF ON SKIN: Wash with plenty of water and soap.
 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 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.
 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 in accordance with local regulations.

TM/MD

3. Composition/information on ingredients

Common name	CAS	Weight % content
Acetone	67-64-1	30 - 60 %
Propane	74-98-6	10 - 30 %
Isopropyl alcohol	67-63-0	10 - 30 %
Butane	106-97-8	7 - 13 %
Toluene	108-88-3	3 - 7 %
Graphite	7782-42-5	1 - 5 %

Note: The manufacturer withholds the actual concentration range of the ingredients as a trade secret.

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Wash skin with warm water and mild soap. Avoid touching eyes with contaminated body parts. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY! Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause redness and irritation to eyes. May cause dry skin and irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.
Notes to the physician	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, chemical foam, carbon dioxide (CO ₂). Do not use a heavy water jet.
Specific hazards arising from the chemical	Flammable aerosol. May ignite on contact with an ignition source. Content under pressure, containers may explode under fire conditions. Aerosol containers are unstable at temperatures above 49 °C.
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. 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 into sewers, closed areas and release to the environment. 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 with a cloth and place in an appropriate waste disposal container clearly identified. Use non-sparking and antistatic tools. 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. Avoid exposure for pregnant women. Do not breathe vapours, mists or aerosols. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep only the quantities necessary for the work being performed in the work area. 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	Keep in properly labelled containers. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat.
Storage temperature	<49°C (120.2°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Propane : 2100 ppm. Butane: 1800 ppm. Acetone: 2500 ppm. Toluene : 500 ppm. Isopropyl alcohol: 2000 ppm. Natural Graphite: 1250 mg/m ³ .
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Acetone	STEL		500 ppm		ACGIH , BC, ON
			1000 ppm	2380 mg/m ³	RSST
Isopropyl alcohol	TWA (8h)		250 ppm		ACGIH , BC, ON
			500 ppm	1190 mg/m ³	RSST
Isopropyl alcohol	STEL		400 ppm		ACGIH , BC, ON
			500 ppm	1230 mg/m ³	RSST
Isopropyl alcohol	TWA (8h)		200 ppm		ACGIH , BC, ON
			400 ppm	983 mg/m ³	RSST
Propane		Simple asphyxiant			ACGIH , BC, ON
Butane			1000 ppm	1800 mg/m ³	RSST
	STEL		1000 ppm		ACGIH , BC, ON
Butane	TWA (8h)		800 ppm	1900 mg/m ³	RSST
			20 ppm		ACGIH , BC, ON
Toluene	TWA (8h)		50 ppm	188 mg/m ³	RSST (Pc)
					ACGIH , BC, ON, RSST
Graphite	TWA (8h)	Respirable Dust		2 mg/m ³	
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 with side shields. If there is a risk of contact with eyes, wear chemical splash goggles.				
Hands	Wear Neoprene gloves. Before using, user should confirm impermeability. 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. Wear synthetic or a neoprene apron, if necessary, to prevent repeated or prolonged contact with skin.				
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. In case of insufficient ventilation or in enclosed area until maximum 10 times of exposure limit, wear half mask respirator with organic vapors cartridges.				
Feet	No personal protection measure required.				
 Goggles Neoprene gloves (thin)					

9. Physical and chemical properties

Physical state	Aerosol (liquid)	Flammability	Flammable.
Colour	Black	Flammability limits	1.5 to 12%
Odour	Aromatic solvent like odor	Flash point	11 °C (51.8 °F)
Odour threshold	N/Av.	Auto-ignition temperature	260 °C (500 °F)
pH	N/Ap.	Sensibility to electrostatic charges	Yes

Melting point	N/Av.	Sensibility to sparks and/or friction	N.Det.
Freezing point	N/Av.	Vapour density	>1 (Air = 1)
Boiling point	56 to 111 °C (132.8 to 231.8 °F)	Relative density	0.77 to 0.85 kg/L (Water = 1)
Solubility	Partially soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	> Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	N/Av.	Viscosity	N/Av.
Percent Volatile	97.5%	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. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates 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	Acetone	Ingestion	5800 mg/kg	Rat	LD50
		Inhalation	71.4 mg/l/4h	Rat	LC50
		Skin	15800 mg/kg	Rabbit	LD50
	Isopropyl alcohol	Ingestion	5045 mg/kg	Rat	LD50
			3600 mg/kg	Mouse	LD50
		Inhalation	66.1 mg/l/4h	Rat	LC50
	Propane	Skin	6280 mg/kg	Rat	LD50
		Inhalation	240000 ppm/4h	Rat	LC50
	Butane	Ingestion	276000 mg/kg	Rat	LC50
		Inhalation	658 mg/l/4h	Rat	LC50
	Toluene	Ingestion	5600 mg/kg	Rat	LD50
		Inhalation	30.2 mg/l/4h	Rat	LC50
		Skin	12600 mg/kg	Rabbit	LD50
Graphite	Ingestion	>2000 mg/kg	Rat	LD50	
	Inhalation	>2 mg/l/4h	Rat	LC50	
	Skin	>2000 mg/kg	Rat	LD50	
Likely routes of exposure	Skin, eyes, inhalation, ingestion.				


Delayed, immediate and chronic effects	Eye contact	May cause irritation, redness, tearing and blurred vision. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.
	Skin contact	May cause dry skin and irritation. Prolonged or repeated contact may cause defatting dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.
	Inhalation	In the workplace, the product is rapidly absorbed by respiratory tract. 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. Repeated and prolonged occupational overexposure to solvents may cause damage to target organs.
	Ingestion	Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness.
	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	Common name IARC NTP Butane - - IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.
	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	Toluene (CAS no 108-88-3) has an embryotoxic and/or fetotoxic hazard in humans (US EPA, 2005).
	Specific target organ toxicity - single exposure	Central nervous system.
Specific target organ toxicity - repeated exposure	Central nervous system, kidneys, liver, auditory apparatus.	
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. The acute toxicity estimates (ATE) by inhalation of the mixture were calculated to be greater than 20 mg/L/4h for vapours and to be greater than 5 mg/L/4h for the aerosols and mists. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.	

12. Ecological information


Ecological toxicity	Fish - Oncorhynchus mykiss - Rainbow trout	LC50 4740 mg/L; 96 h (CAS no 67-64-1)
	Aquatic Invertebrate - Daphnia magna	EC50 12600-12700 mg/L; 48 h (CAS no 67-64-1)
	Fish - Oncorhynchus mykiss - Rainbow trout	LC50 5.8 mg/L; 96 h (CAS no 108-88-3)
	Aquatic Invertebrate - Daphnia magna	EC50 5.46-9.83 mg/L; 48 h (CAS no 108-88-3)
	Fish - Fathead minnow, Pimephales promelas - fresh water	LC50 9640 mg/L; 96 h (CAS no 67-63-0)
	Aquatic Invertebrate - Crustaceans, Daphnia Magna	EC50 3644 mg/L; 48 h (CAS no 67-63-0)
	Plant - Lettuce seed germination, Lactuca Sativa	EC50 2100 mg/L; 72 h (CAS no 67-63-0)
	Fish - Branchydanio Renio - fresh water	LC50 >100 mg/L ; 96 h (CAS no 7782-42-5) OECD 203
	Aquatic Invertebrate - Daphnia magna	EC50 >100 mg/L; 48 h (CAS no 7782-42-5) OECD 202
	Algea, Pseudokirchneriella subcapitata - static	EC50 >100 mg/L; 72 h (CAS no 7782-42-5) OECD 201
Persistence	Contains an or many ingredients that may be persistent in the environment.	

Degradability	The product is a mixture whose ingredients are readily biodegradable (> 60% in 28 days). The term biodegradability, as such, is not applicable to inorganic compounds.
Bioaccumulative potential	The product is a mixture of which some ingredients have a low bioaccumulation potential (Log Kow of <3 and / or BCF <500) while other ingredients have some potential to bioaccumulate (Log Kow of >3 and / or BCF >500).
Mobility in soil	The product is a mixture of which some ingredients evaporate very easily from the surface of the soil. Moreover, some ingredients have very high mobility in soil, while other ingredients have moderate to low mobility in soil.
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

Container 	Important! Prevent waste generation. Use in full. DO NOT pierce, cut, heat, or burn the container, even after use. DO NOT dispose residue in sewers, streams or drinking water supply. Depressurize empty container (empty it of its propellant). Dispose of empty container as household waste. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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14. Transport information

UN Number	UN 1950
UN Proper Shipping Name	AEROSOLS, FLAMMABLE
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	Permit required for transportation with proper DANGER 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 2016	<u>126</u>
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. AEROSOLS, FLAMMABLE. 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
Acetone	67-64-1		X		
Propane	74-98-6	X	X		X
Isopropyl alcohol	67-63-0	X	X		X
Butane	106-97-8	X	X		X
Toluene	108-88-3	X	X		X
Graphite	7782-42-5		X		

- 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.
Acetone	67-64-1	X	X			X				
Propane	74-98-6	X						X		
Isopropyl alcohol	67-63-0	X		X						
Butane	106-97-8	X						X		
Toluene	108-88-3	X	X	X		X	X		X	X
Graphite	7782-42-5	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

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
Toluene	108-88-3		X

Other regulations

HMIS

2	Health
4	Flamability
0	Reactivity
B	Protective Equipment

NFPA

2	3	0
2	3	0

16. Other information

Date (YYYY-MM-DD)	AEROCHEM Inc. 2020-03-03
Version	03
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none">- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://haz-map.com/- 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- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, https://pubchem.ncbi.nlm.nih.gov/ <p>DATE OF FIRST VERSION OF SDS: 2017-09-16.</p> <p>CHANGES MADE IN THE VERSION 02: section 3.</p> <p>DATE OF SECOND VERSION OF SDS: 2019-07-31.</p> <p>CHANGES MADE IN THE VERSION 03: section 1.</p> <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>