

Safety Data Sheet

SUPER D.I.



AEROCHEM

1. Identification

Product identifier	SUPER D.I.
Product code	AESUPERDI420GDZ
Other means of identification	SUPER D.I. Aerosol. This SDS sheet is not for the product in liquid format.
Recommended use of the chemical and restrictions on use	Degreasing agent with a fast evaporation rate, without chlorinated solvents.
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	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 and other protective clothing that are adapted to the task being performed and the risks involved.
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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) Skin sensitizer (Category 1) Specific target organ toxicity, single exposure, Narcotic effects (Category 3) Aspiration hazard (Category 1)</p>
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DANGER

- H222: Extremely flammable aerosol
- H229: Pressurized container: may burst if heated
- H304: May be fatal if swallowed and enters airways
- H319: Causes serious eye irritation
- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H336: May cause drowsiness or dizziness
- 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.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves, protective clothing and eye protection.
 P301+310+331: IF SWALLOWED: Immediately call a POISON CENTER or a physician. Do NOT induce vomiting.
 P302+352: IF ON SKIN: Wash with plenty of water and soap.
 P333+313: If skin irritation or a rash 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 to a licensed chemical disposal agency in accordance with local, regional and national regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	65 - 85 %
d-Limonene	5989-27-5	10 - 30 %
Carbon dioxide	124-38-9	1 - 5 %
Isopropyl alcohol	67-63-0	0.5 - 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 for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. Seek medical attention immediately.
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 of the skin and to eyes. May cause an allergic reaction of the skin. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. Harmful or fatal if inhaled into the lungs (ingestion/vomiting). Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.
Notes to the physician	Aspiration hazard for the lungs (ingestion/vomiting). Can enter lungs and cause damage. 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. May ignite on contact with an ignition source. Content under pressure, containers may explode 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. 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.
Methods and materials for containment and cleaning up	Ventilate the area well. Remove sources of ignition. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal 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, sparks 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 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	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	Isopropyl alcohol: 2000 ppm. Carbon dioxide: 40000 ppm.
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Naphtha (petroleum), hydrotreated heavy (C6-C13)	TWA (8h) Mist	300 ppm	5 mg/m ³	ACGIH , RSST OSHA
d-Limonene	TWA (8h)	30 ppm		US AIHA
Carbon dioxide	STEL	30000 ppm	54000 mg/m ³	ACGIH , ON, RSST
	TWA (8h)	5000 ppm	9000 mg/m ³	ACGIH , ON, RSST
Isopropyl alcohol	STEL	400 ppm		ACGIH , BC, ON
		500 ppm	1230 mg/m ³	RSST
	TWA (8h)	200 ppm		ACGIH , BC, ON
		400 ppm	983 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	If there is a risk of contact with eyes, wear chemical splash goggles.			
Hands	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. 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 confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit, wear a half mask respirator with organic vapour cartridges fitted with P100 filters. For an APF until maximum 100 times of exposure limit, wear a full face respirator mask with organic vapour cartridges and P100 filters.			
Feet	No personal protection measure required.			
 Goggles Nitrile gloves				

9. Physical and chemical properties

Physical state	Aerosol (liquid)	Flammability	Flammable
Colour	Clear orange	Flammability limits	1.1 to 6.1%
Odour	Citrus	Flash point	58°C (136.4°F) ASTM D56
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Av.	Sensibility to electrostatic charges	Yes
Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	5.65 (Air = 1)
Boiling point	150 to 170°C (302 to 338°F)	Relative density	0.85 kg/L (Water = 1)

Solubility	Insoluble in water (<1.5%).	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	< Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	310.26kPa (2327 mm Hg)	Viscosity	2 cSt @ 40 °C (104 °F)
Percent Volatile	100%	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable 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	Content under pressure, do not puncture, cut, heat or throw container into the flames. Avoid contact with incompatible materials.
Incompatible materials	Strong bases, strong acids, 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	<p>Naphtha (petroleum), hydrotreated heavy (C6-C13)</p> <p>d-Limonene</p> <p>Carbon dioxide</p> <p>Isopropyl alcohol</p>	<p>Ingestion >10000 mg/kg Rat LD50</p> <p>Inhalation >8.5 mg/l/4h Rat LC50</p> <p>Skin >3200 mg/kg Rabbit LD50</p> <p>Ingestion 4400 mg/kg Rat LD50</p> <p>Skin >5000 mg/kg Rabbit LD50</p> <p>Ingestion 820000 ppm/4h Rat LC50</p> <p>Inhalation 200000 ppm/2h Mouse LC50</p> <p>Ingestion 5045 mg/kg Rat LD50</p> <p>3600 mg/kg Mouse LD50</p> <p>Inhalation 66.1 mg/l/4h Rat LC50</p> <p>Skin 6280 mg/kg Rat LD50</p>
Likely routes of exposure	Skin, eyes, inhalation, ingestion.	
Delayed, immediate and chronic effects	<p>Eye contact</p> <p>Skin contact</p> <p>Inhalation</p> <p>Ingestion</p>	<p>May cause redness and irritation to eyes. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.</p> <p>May cause itching, redness and skin irritation. Prolonged or repeated exposure can cause skin drying, defatting and dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.</p> <p>Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.</p> <p>Harmful or fatal if inhaled into the lungs (ingestion/vomiting). May cause serious damage to lung tissue and respiratory tract. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the</p>

	<p>skin. Coughing, choking and gagging are often noted at the time of aspiration.</p> <p>Respiratory or skin sensitization May cause an allergic reaction of the skin. Humans applied with patch tests showed signs of sensitization 10 to 15 minutes after the application of d-Limonene (CAS no 5989-27-5). Signs of sensitization were also observed in tests using guinea pigs (OECD TG 429). Moreover, recent studies indicate that the oxidation products of d-limonene which are responsible for the skin sensitization and not d-limonene itself. This product is not a respiratory sensitizer.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>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.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p> <p>Specific target organ toxicity - single exposure Central nervous system.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
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 estimate (ATE) by inhalation (aerosol/mist) of the mixture was calculated to be greater than 5 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.


12. Ecological information

Ecological toxicity	<p>Fish - Pimephales promelas - Fresh water LC50 8.2 mg/L; 96 h (64742-48-9)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 4.5 mg/L; 48 h (64742-48-9) OECD 202</p> <p>Fish - Fathead minnow, Pimephales promelas - fresh water LC50 9640 mg/L; 96 h (CAS no 67-63-0)</p> <p>Aquatic Invertebrate - Crustaceans, Daphnia Magna EC50 3644 mg/L; 48 h (CAS no 67-63-0)</p> <p>Plant - Lettuce seed germination, Lactuca Sativa EC50 2100 mg/L; 72 h (CAS no 67-63-0)</p> <p>Fish - Pimephales promelas - Fresh water LC50 0.72 mg/L; 96 h (CAS no 5989-27-5) OECD 203</p> <p>Aquatic Invertebrate - Daphnia magna (static) EC50 0.36 mg/L; 48 h (CAS no 5989-27-5) OECD 202</p>
Persistence	Contains an or many ingredients that may be persistent in aquatic environment.
Degradability	The product is a mixture of which some ingredients are readily biodegradable (> 60% in 28 days) while other ingredients are not readily biodegradable (<60% in 28 days).
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

	<p>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. Non-use oils, organic solvents and wastes residues can be reprocessed (recycle) where there is a recovery program. Depressurize empty container (empty it of its propellant). Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.</p>
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14. Transport information

UN Number	UN 1950
UN Proper Shipping Name	AEROSOLS
Environmental hazards	Contains 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
<p>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.</p>	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9		X		
d-Limonene	5989-27-5	X	X		X
Carbon dioxide	124-38-9	X	X		
Isopropyl alcohol	67-63-0	X	X		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.
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	X								
d-Limonene	5989-27-5	X								
Carbon dioxide	124-38-9	X								
Isopropyl alcohol	67-63-0	X		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

HMIS

- Health
- Flamability
- Reactivity
- Protective Equipment

NFPA

16. Other information

Date (YYYY-MM-DD)	AEROCHEM Inc. 2020-03-16
Version	05
Other information	<p>REFERENCES:</p> <ul style="list-style-type: none"> - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://haz-map.com/ - 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 <p>DATE OF FIRST VERSION OF SDS: 2015-12-19.</p> <p>CHANGES MADE IN THE VERSION 02: sections 2, 3, 8, 11, 12 and 15.</p> <p>DATE OF SECOND VERSION OF SDS: 2017-09-14.</p> <p>CHANGES MADE IN THE VERSION 03: sections 3 and 15.</p> <p>DATE OF THIRD VERSION OF SDS: 2018-07-18.</p> <p>CHANGES MADE IN THE VERSION 04: sections 2 and 3.</p> <p>DATE OF VERSION 04 OF SDS: 2019-08-01.</p> <p>CHANGES MADE IN THE VERSION 05:</p>

sections 1, 3, 8, 11, 12, and 15.

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

TM/MD

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