

SAFETY DATA SHEET



DP-Spray P, DP-Spray M



Section 1. Identification

Product identifier : DP-Spray P, DP-Spray M
Cat. No. : 40600144, 40600145, 40600146, 40600147, 40600148, 40600149, 40600150, 40600151, 40600152, 40600153, 40600154, 40600155
Container size : 150 ml
Other means of identification : Not available.
Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Product use : For grinding and polishing for materialographic preparations
Area of application : Professional applications, Used by spraying.

Supplier's details : Struers Ltd
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Ontario
L5T 2V7 Mississauga
Canada

Telephone: +1 (905) 814 8855

e-mail address of person responsible for this SDS : sdsquestions@struers.dk

Emergency telephone number (with hours of operation) : Alberta & NWT:
Poison & Drug Information Service (PADIS): 1-800-332-1414
British Columbia:
Drug and Poison Information Centre (DPIC): 604-682-5050 / 1-800-567-8911
Ontario:
Poison Centre: 1-800-268-9017
Québec:
Poison Control Centre: 1-800-463-5060
Infotrac:
1-800-535-5053

Section 2. Hazard identification

Classification of the substance or mixture : H222, H229 AEROSOLS - Category 1
H319 EYE IRRITATION - Category 2A
H317 SKIN SENSITIZATION - Category 1A
H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Health Hazards Not Otherwise Classified - Category 1

GHS label elements

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Section 2. Hazard identification

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H222, H229 - Extremely flammable aerosol. Pressurized container: may burst if heated.
 H317 - May cause an allergic skin reaction.
 H319 - Causes serious eye irritation.
 H336 - May cause drowsiness or dizziness.
 H373 - May cause damage to organs through prolonged or repeated exposure. (liver)
 Prolonged or repeated contact may dry skin and cause irritation.

Precautionary statements

Prevention

: P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 - Do not spray on an open flame or other ignition source.
 P271 - Use only outdoors or in a well-ventilated area.
 P260 - Do not breathe dust or mist.
 P264 - Wash thoroughly after handling.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P251 - Do not pierce or burn, even after use.

Response

: P314 - Get medical advice or attention if you feel unwell.
 P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage

: P405 - Store locked up.
 P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Avoid contact with skin and clothing. Wash thoroughly after handling.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

Section 3. Composition/information on ingredients

Ingredient name	Other names	% (w/w)	Identifiers
ethanol	-	≥65 - ≤85	CAS: 64-17-5
Isopropyl alcohol	-	≥5 - ≤10	CAS: 67-63-0
maleic anhydride	-	≤0.1	CAS: 108-31-6

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms



Section 4. First-aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethanol	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 3/2025) STEL 15 minutes: 1000 ppm. CA Ontario Provincial (Canada, 6/2019) STEL 15 minutes: 1000 ppm. CA Quebec Provincial (Canada, 2/2024) C3. STEV 15 minutes: 1000 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 1000 ppm. OEL 8 hours: 1880 mg/m ³ .
Isopropyl alcohol	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 3/2025) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 200 ppm. STEV 15 minutes: 400 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 984 mg/m ³ . OEL 8 hours: 200 ppm. OEL 15 minutes: 400 ppm. OEL 8 hours: 492 mg/m ³ .
maleic anhydride	CA Saskatchewan Provincial (Canada, 4/2021) Sensitizer. STEL 15 minutes: 0.3 ppm.

Section 8. Exposure controls/personal protection

TWA 8 hours: 0.1 ppm.
CA British Columbia Provincial (Canada, 3/2025) Skin sensitizer , Inhalation sensitizer.
 TWA 8 hours: 0.1 ppm.
CA Ontario Provincial (Canada, 6/2019)
 TWA 8 hours: 0.01 mg/m³. Form: inhalable fraction and vapour.
CA Quebec Provincial (Canada, 2/2024)
 Skin sensitizer , Inhalation sensitizer.
 TWA EV 8 hours: 0.01 mg/m³. Form: inhalable fraction and vapour.
CA Alberta Provincial (Canada, 3/2023)
 OEL 8 hours: 0.1 ppm.
 OEL 8 hours: 0.4 mg/m³.

Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

Recommended: Nitrile gloves.
Breakthrough time: 240 minutes
thickness: 0.5 mm

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: (as filter combination A2/P2)

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid. [Aerosol.]
- Color** : Gray.
- Odor** : Alcohol-like.
- Odor threshold** : Not available.
- Melting point and freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : Not available.
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit or lower and upper flammability limit** : Lower: 3.3%
Upper: 19%
- Flash point** : Closed cup: 13°C (55.4°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Solubility(ies) :	Media	Result
	water	Soluble

- Miscible with water** : Yes.
- Partition coefficient — n-octanol/water (logarithmic value)** : Not applicable.
- Vapor pressure** :

Section 9. Physical and chemical properties

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
ethanol	42.94865	5.7				

Relative density	: Not available.
Relative vapor density	: Not available.
Heat of combustion	: 0.03702 kJ/g
<u>Particle characteristics</u>	
Median particle size	: Not applicable.
<u>Aerosol product</u>	
Type of aerosol	: Spray
<u>Other information</u>	
Physical/chemical properties comments	: No additional information.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame).
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
ethanol	Rat - Male, Female - Oral - LD50 10470 mg/kg	OECD 401 [Acute Oral Toxicity]
	Rabbit - Dermal - LD50 >2000 mg/kg	OECD 402 [Acute Dermal Toxicity]
	Rat - Inhalation - LC50 Vapor 51 mg/l [4 hours]	OECD 403 [Acute Inhalation Toxicity]
Isopropyl alcohol	Rat - Oral - LD50 5840 mg/kg	OECD 401 [Acute Oral Toxicity]
	Rabbit - Dermal - LD50 13900 mg/kg	OECD 402 [Acute Dermal Toxicity]
	Rat - Inhalation - LC50 Vapor	

Section 11. Toxicological information

maleic anhydride	72.2 mg/l [4 hours] Rabbit - Dermal - LD50 2620 mg/kg Rat - Male, Female - Oral - LD50 1090 mg/kg	OECD 401 [Acute Oral Toxicity]
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Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result
ethanol	Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 400 mg
Isopropyl alcohol	Rabbit - Skin - Mild irritant <u>Amount/concentration applied:</u> 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
Isopropyl alcohol	Rabbit - Eyes - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 100 mg
	Rabbit - Eyes - Moderate irritant <u>Amount/concentration applied:</u> 10 mg
maleic anhydride	Rabbit - Eyes - Severe irritant <u>Amount/concentration applied:</u> 100 mg
	Rabbit - Eyes - Severe irritant <u>Amount/concentration applied:</u> 1 %

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Product/ingredient name	Result	
maleic anhydride	Guinea pig - skin <u>Result:</u> Sensitizing	OECD 406 [Skin Sensitization]

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	IARC	NTP	ACGIH
Isopropyl alcohol	3	-	A4
maleic anhydride	-	-	A4

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

ethanol

Isopropyl alcohol

Result

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Isopropyl alcohol

maleic anhydride

Result

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (liver) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory system) (inhalation) - Category 1

Aspiration hazard

Not available.

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Conclusion/Summary [Product] : Not available.

General	: May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
DP-Spray P, DP-Spray M	59948.4	3120.9	N/A	N/A	N/A
ethanol	10470	2500	N/A	51	N/A
Isopropyl alcohol	5840	13900	N/A	72.2	N/A
maleic anhydride	1090	2620	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

ethanol

Result

Acute - LC50 - Marine water

Fish - Bleak - *Alburnus alburnus*Size: 8 to 10 cm

11 g/l [96 hours]

Effect: Mortality

Chronic - NOEC - Marine water

Algae - Green algae - *Ulva pertusa*

4.995 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

- Neonate

Age: <24 hours

100 µl/l [21 days]

Effect: Mortality

Acute - LC50

Fish - *Oncorhynchus mykiss*

13000 mg/l [96 hours]

OECD 203 [Fish, Acute Toxicity Test]

Acute - EC50

Daphnia - *Ceriodaphnia dubia*

5012 mg/l [48 hours]

STDMETH, ASTM and USEPA E 729-80

Acute - EC50

Algae - *Chlorella vulgaris*

275 mg/l [72 hours]

OECD 201 [Alga, Growth Inhibition Test]

Acute - EC10

Algae - *Chlorella vulgaris*

11.5 mg/l [72 hours]

OECD 201 [Alga, Growth Inhibition Test]

Acute - EC50

Micro-organism

5800 mg/l [4 hours]

Isopropyl alcohol

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*Age: 31 days; Size: 20.6 mm; Weight: 0.117 g

9640 mg/l [96 hours]

Effect: Mortality

Acute - EC50

Algae - *Scenedesmus subspicatus*

>100 mg/l [72 hours]

maleic anhydride

Acute - LC50 - Fresh water

OECD [Alga, Growth Inhibition Test]

Section 12. Ecological information

Algae
74.35 mg/l [72 hours]
Acute - LC50
Fish - *Oncorhynchus mykiss*
75 mg/l [96 hours]
Chronic - NOEC - Fresh water
Daphnia - *Daphnia magna*
10 mg/l [21 days]
Acute - EC50
Daphnia
42.81 mg/l [48 hours]

OECD 202 [Daphnia sp. Acute
Immobilization Test and Reproduction
Test]

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Product/ingredient name

Result

ethanol

97% [28 days] - Readily

OECD 301B [Ready Biodegradability -
CO₂ Evolution Test]

Isopropyl alcohol

Aerobic

53% [5 days] - Readily

maleic anhydride

Aerobic

>90% [25 days] - Readily

OECD [Ready Biodegradability - CO₂
Evolution Test]

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
DP-Spray P, DP-Spray M	-	-	Readily
ethanol	-	-	Readily
Isopropyl alcohol	-	-	Readily
maleic anhydride	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
ethanol	-0.35	0.66	Low
Isopropyl alcohol	0.05	-	Low
maleic anhydride	-2.78	-	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	Aerosols	AEROSOLS	Aerosols, flammable
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 1
Passenger Carrying Road or Rail Index 75
Special provisions 80, 107

DOT Classification : **Limited quantity** Yes.
Packaging instruction Exceptions: 306. Non-bulk: None. Bulk: None.
Quantity limitation Passenger aircraft/rail: 75 kg. Cargo aircraft: 150 kg.
Special provisions N82

IMDG : **Emergency schedules** F-D, S-U
Special provisions 63, 190, 277, 327, 344, 381, 959

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.
Special provisions A145, A167, A802

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



Section 15. Regulatory information

Canadian lists

Canadian NPRI	: The following components are listed: ethanol; isopropyl alcohol
CEPA Toxic substances	: None of the components are listed.
Canada inventory	: At least one component is not listed in DSL but all such components are listed in NDSL.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

History

Date of issue/Date of revision	: 20/03/2026
Date of previous issue	: 13/01/2025
Version	: 2
Prepared by	: Sphera Solutions
Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor DOT = Department of Transportation GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods IMO = International Maritime Organization LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations

Procedure used to derive the classification



Section 16. Other information

Classification	Justification
AEROSOLS - Category 1 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 Health Hazards Not Otherwise Classified - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method

References : HPR = Hazardous Products Regulations

Indicates information that has changed from previously issued version.

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