

SAFETY DATA SHEET



Product name: DP-SPRAY Page: 1/12
Revision Date: 2020-01-31 Print date: 2020-01-31
Document No.: M0021 SDS-ID: US-EN/20.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: DP-SPRAY
Cat. No.40600144, 40600145, 40600146, 40600147, 40600148, 40600149,
40600150, 40600151, 40600152, 40600153, 40600154, 40600155

Container size: 150 ml

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

Application: For grinding and polishing for materialographic preparations

Uses advised against: No specific uses advised against are identified. (*)

Details of the supplier of the safety data sheet

Supplier: Struers ApS
Pederstrupvej 84
DK-2750 Ballerup
Tel:+45 44 600 800

Responsible for material safety data sheet authoring: Responsible for material safety data sheet authoring: DHI
Any questions to the contents of this material safety data sheet should be sent to:
struers@struers.dk

Emergency telephone number

National Capital Poison Center: 1-800-222-1222

Infotrac:
1-800-535-5053
Struers US:
1-440-871-0071

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA 2012: Flammable Aerosol Category 1
Eye irritant Category 2A

Label elements



Danger

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards

The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged contact may cause redness and irritation. Spray mists may cause respiratory tract irritation.

PBT/vPvB: No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: organic solvents, abrasive and propellants.

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OSHA 2012:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
60-90	64-17-5	200-578-6	-	Ethanol	Flammable Liquid Category 2 Eye irritant Category 2A	
5-<10	67-63-0	200-661-7	-	Propan-2-ol	Flammable Liquid Category 2 Eye irritant Category 2A Category 3 Target organ toxicant Single Exposure (narcotic effects)	
1-5	7727-37-9	231-783-9	-	Nitrogen	-	
<3	7782-40-3	231-953-2	-	Diamond	-	

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Inhalation: Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring along these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards: The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Aerosol containers can explode when heated, due to excessive pressure build-up.

Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapors and aerosols and contact with skin and eyes. For personal protection, see section 8.

For emergency responders: No specific recommendations. For personal protection, see section 8.

Environmental precautions

Environmental precautions: Avoid discharge into water courses or onto the ground.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Large quantities should not be discharged into the drain but removed with absorbing material. Do not use sawdust or other combustible material.

Reference to other sections

References: For personal protection, see section 8.
For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid inhalation of vapors and contact with skin and eyes. Observe good chemical hygiene practices.

Technical measures: Do not smoke or use open fire or other sources of ignition.

Technical precautions: Mechanical ventilation may be required.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: Follow rules for flammable liquids.

Storage conditions: Store in a cool and well-ventilated place. Avoid contact with oxidizing agents.

Specific end use(s)

Specific use(s): No information available.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>		<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
67-63-0	Isopropyl alcohol	-	400 ppm	980 mg/m ³	TWA	-	OSHA
64-17-5	Ethyl alcohol	-	1000 ppm	1900 mg/m ³	TWA	-	OSHA
7727-37-9	Nitrogen	-				Simple asphyxiant	ACGIH
64-17-5	Ethanol	-	1000 ppm		STEL	A3; 15min	ACGIH
67-63-0	2-Propanol	-	200 ppm		TWA	A4; BEI	ACGIH
		-	400 ppm		STEL	A4; BEI; 15min	

Notes: A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans.
A4: Not Classifiable as a Human Carcinogen.
BEI: Biological Exposure Index.

Biological Limit Values:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>	<u>Sampling time:</u>	<u>Notes:</u>	<u>References:</u>
67-63-0	2-Propanol	Acetone in urine	40 mg/L	End of shift at end of workweek	B; Ns	-

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mist. Provide easy access to water supply or an emergency shower.

Personal protection: Personal protection equipment should be chosen according to the ANSI standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation: Use respiratory equipment with combination filter, type A2/P2. (*)

Hand protection: Risk of contact: Wear protective gloves. Nitrile gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
Breakthrough time: 240 min
Thickness: 0,5 mm (*)

Eye protection: Risk of splashes: Wear face shield.

Skin protection: No special precautions.

Environmental Exposure Controls: Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form: Aerosol.

Odor: odor of alcohol

Odor threshold: Not available.

pH: Not available.

Melting point: Not available.

Boiling point: Not available.

Flash point: 55.4°F (liquid phase)

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Explosion limits: 3.3-19 vol%

Vapor pressure: Not available.

Vapor density: Not available.

Relative density: Not available.

Solubility: Miscible with water.

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature (°F): Not available.

Decomposition temperature (°F): Not available.

Viscosity: Not available.

Explosive properties: Not available.

Oxidizing properties: Not available.

Other information

Other data: Volatile Organic Compound (VOC): 700 g/l (calculated)

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SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: No data available.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: No data available.

Conditions to avoid

Conditions/materials to avoid: Avoid exposing aerosol containers to high temperatures or direct sunlight.

Incompatible materials

Incompatible materials: Avoid contact with oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products: No data available.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.

Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.
National Toxicology Program (NTP): No.
IARC Cancer Review: Group 3 for 2-Propanol.
OSHA: No.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

STOT - Single exposure: Based on available data, the classification criteria are not met.

STOT - Repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Vapors and spray mist may irritate throat and respiratory system and cause coughing. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Skin contact: Prolonged contact may cause redness and irritation.

Ingestion: May irritate and cause malaise.

Specific effects: Frequent inhalation of even small concentrations may cause irritability, fatigue and memory failure and eventually permanent damage to the nervous system, including the brain.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: The environmental hazard of the product is considered to be limited.

Persistence and degradability

Degradability: The product is easily biodegradable.

Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

Mobility in soil

Mobility: No data available.

Results of PBT and vPvB assessment

PBT/vPvB: No information available.

Other adverse effects

Other adverse effects: No information available.

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SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues: Dispose of waste and residues in accordance with local authority requirements. Do not puncture or incinerate even when empty.

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements. Empty aerosol containers before disposal.

SECTION 14: TRANSPORT INFORMATION

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA).

UN number

UN-No: 1950

UN proper shipping name

Proper Shipping Name: AEROSOLS

Additional IMDG information:

EmS: F-D , S-U

MFAG: 1

Transport hazard class(es)

Class: 2.1

Packing group

PG: -

Environmental hazards

Marine pollutant: No.

Environmentally Hazardous substance: No.

Special precautions for user

Special precautions: None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: Not relevant.

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SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Special provisions: State and local regulation may apply.

TSCA: Listed.

NFPA Rating: Health: 1 Fire: 4 Reactivity: 0 Other: -

SARA Section 302: No.

SARA Section 304: No.

SARA Section 313: Yes.

SARA (311/312) Hazard categories: Yes.

National regulation:

The following lists have been checked:

Threshold Limit Values (2019), ACGIH, by the American Conference on Governmental Industrial Hygienists.

The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Hazard Communication, with amendments.

The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.

NIOSH Pocket Guide to Chemical Hazards.

The Code of Federal Regulation, Title 40, part 261.33. Identification and listing of hazardous waste.

The Code of Federal Regulation. Title 40, part 372.65. Toxic Chemical Release Reporting: Community Right to Know.

The Code of Federal Regulation. Title 40, part 355.50. Emergency Planning and Notification.

The Code of Federal Regulation. Title 40, part 302.4. Designation, Reportable Quantities, and Notification.

The Code of Federal Regulation. Title 40, part 68.130. Chemical Accident Prevention Provisions.

U.S. Department of health and human services: 2016 - Report on Carcinogens - 14th Edition.

International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1, 8.

The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Allan Vorup

Abbreviations and acronyms used in the safety data sheet: PBT = Persistent, Bioaccumulative and Toxic.
vPvB = very Persistent and very Bioaccumulative.

Additional information: Classification according to HCS 2012:
Calculation method.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.
www.dhigroup.com.
