

SAFETY DATA SHEET



Product name:	DP-SPRAY	Page:	1/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

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

Details of the supplier of the safety data sheet

Supplier: Struers A/S
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

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

Emergency telephone number

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

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	2/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

<u>67/548/EEC:</u>	The product is classified: F+;R12
<u>GHS:</u>	The product is classified: Flam. Aerosol 1;H222
<u>Physical and Chemical Hazards:</u>	The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures.
<u>Human health:</u>	May irritate eyes and skin. Spray mists may cause respiratory tract irritation.
<u>Environment:</u>	The hazardous properties of the product in the environment are considered to be limited.

Label elements



DANGER

H222	Extremely flammable aerosol.
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.
P251	Do not pierce or burn, even after use.
P410	Protect from sunlight.
P412	Do not expose to temperatures exceeding 50 °C/ 122 °F.

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

Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

Other hazards

<u>PBT/vPvB:</u>	Not relevant.
------------------	---------------

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: organic solvents, abrasive and propellants.

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	3/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

67/548/EEC:

<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	F;R11	
5-<10	67-63-0	200-661-7	01-2119457558- 25-xxxx	Propan-2-ol	F;R11 Xi;R36 R67	
1-5	7727-37-9	231-783-9	-	Nitrogen	-	
<3	7782-40-3	231-953-2	-	Diamond	-	

GHS:

<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	Flam. Liq. 2;H225	
5-<10	67-63-0	200-661-7	01-2119457558- 25-xxxx	Propan-2-ol	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336	
1-5	7727-37-9	231-783-9	-	Nitrogen	-	
<3	7782-40-3	231-953-2	-	Diamond	-	

References: The full text for all R-phrases and hazard statements are displayed in section 16.

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 up to 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: Not known.

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	4/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

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.

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

Personal precautions: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapors and aerosols and contact with skin and eyes.

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.

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): Not relevant.

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	5/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

CAS-No.:	Chemical name:	As:	Exposure limits:	Type:	Notes:	References:
64-17-5	Ethanol	-	1000 ppm	STEL	A3; 15min	ACGIH
67-63-0	2-Propanol	-	200 ppm	TWA	A4	ACGIH
		-	400 ppm	STEL	A4; 15min	
7727-37-9	Nitrogen	-			Simple asphyxiant	ACGIH
67-63-0	Isopropyl alcohol	-	400 ppm	980 mg/m3	TWA	-
64-17-5	Ethyl alcohol	-	1000 ppm	1900 mg/m3	TWA	-

Notes:

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans.

A4: Not Classifiable as a Human Carcinogen.

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 CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation: Use respiratory equipment with gas filter, type A2.

Hand protection: Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection: Risk of splashes: Wear face shield.

Skin protection: No special precautions.

Environmental Exposure: Not available.

Controls:

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	6/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<u>Appearance:</u>	aerosol
<u>Odor:</u>	odor of alcohol
<u>pH:</u>	Not available.
<u>Boiling point:</u>	Not available.
<u>Flash point:</u>	13°C(liquid phase)
<u>Explosion limits:</u>	3,3-19 vol%
<u>Relative density:</u>	Not available.
<u>Solubility:</u>	Miscible with water.

Other information

<u>Other data:</u>	VOC (Volatile Organic Substances): 700 g/l (calculated)
--------------------	---

SECTION 10: STABILITY AND REACTIVITY

Reactivity

<u>Reactivity:</u>	None known.
--------------------	-------------

Chemical stability

<u>Stability:</u>	Stable under normal temperature conditions.
-------------------	---

Possibility of hazardous reactions

<u>Hazardous Reactions:</u>	None known.
-----------------------------	-------------

Conditions to avoid

<u>Conditions/materials to avoid:</u>	Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid contact with oxidizing agents.
---------------------------------------	---

Incompatible materials

<u>Incompatible materials:</u>	None known.
--------------------------------	-------------

Hazardous decomposition products

<u>Hazardous decomposition products:</u>	No special precautions.
--	-------------------------

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	7/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

<u>Inhalation:</u>	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.
<u>Skin contact:</u>	Prolonged contact may cause redness and irritation.
<u>Eye contact:</u>	Splashes may irritate.
<u>Ingestion:</u>	May irritate and cause malaise.
<u>Specific effects:</u>	Frequent inhalation of even small concentrations may cause irritability, fatigue and memory failure and eventually permanent damage to the nervous system, including the brain. Carcinogenicity: National Toxicology Program (NTP): No. I.A.R.C. Monographs: No. OSHA: No.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

<u>Ecotoxicity:</u>	The environmental hazard of the product is considered to be limited.
---------------------	--

Persistence and degradability

<u>Degradability:</u>	The product is easily biodegradable.
-----------------------	--------------------------------------

Bioaccumulative potential

<u>Bioaccumulative potential:</u>	No data available on bioaccumulation.
-----------------------------------	---------------------------------------

Mobility in soil

<u>Mobility:</u>	No data available.
------------------	--------------------

Results of PBT and vPvB assessment

<u>PBT/vPvB:</u>	Not relevant.
------------------	---------------

Other adverse effects

<u>Other adverse effects:</u>	None known.
-------------------------------	-------------

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste. Do not puncture or incinerate even when empty.

<u>Waste from residues:</u>	Used cloths, etc. EWC-code: 15 02 02
-----------------------------	---

<u>Contaminated packaging:</u>	Empty aerosol containers before disposal. EWC-code: 15 01 10
--------------------------------	---

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	8/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

SECTION 14: TRANSPORT INFORMATION

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.

SECTION 15: REGULATORY INFORMATION

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

Special provisions: As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

TSCA: Listed.

National regulation: Europe/USA:
This Material Safety Data Sheet has been prepared according to the EU-regulation.
Threshold Limit Values (2013), ACGIH, by the American Conference on Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and Health Standards, Air contaminants (OSHA), with amendments.

Chemical Safety Assessment

CSA status: Not relevant.

SAFETY DATA SHEET

Product name:	DP-SPRAY	Page:	9/9
Revision Date:	2013-11-25	Print date:	2013-11-25
Document No.:	M0021	SDS-ID:	US-EN/13.0

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: -

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

Approved by DHI.

Allan Vorup

Additional information: Classification according to Regulation (EC) No. 1272/2008:
Calculation method.
Bridging principle (Dilution).

Wording of H-statements:

R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R67	Vapors may cause drowsiness and dizziness.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

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.