

MATERIAL SAFETY DATA SHEET



according to EEC Directives 91/155/EEC and 93/112/EC

Product name: DP-LUBRICANT BLUE Page: 1/6
Last revised date: 2000-02-01 Print date: 2000-02-01
P/N-no.: M1201015 SDS-ID: US-D/1.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product name: DP-LUBRICANT BLUE
Application: Cutting and cooling additive for fine grinding and polishing of materialographic preparations
Container size: 1, 5, 25 l
Supplier: Struers A/S
Valhøjs Allé 176
DK-2610 Rødovre
Tel: +45 3670 3500

2. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains: organic solvents and pigments.

<u>Chemical name:</u>	<u>CAS-No.:</u>	<u>%:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
Ethanol	64-17-5	70-85	F;R11	-
Ethylene glycol	107-21-1	5-15	Xn;R22	-
Propan-2-ol	67-63-0	5-15	F;R11 Xi;R36 R67	-
Blue dye	81457-64-9	< 0.1	-	-

3. HAZARDS IDENTIFICATION

Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small.

The product is highly flammable.

Man: Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain. The liquid may irritate the skin, the eyes and the respiratory tract. See point 11 for additional information on health hazards.

Environment: The product is not expected to be hazardous to the environment.

4. 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 into fresh air and keep at rest.

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 uncomfortable: Seek hospital and bring along these instructions.

MATERIAL SAFETY DATA SHEET

according to EEC Directives 91/155/EEC and 93/112/EC



Product name: DP-LUBRICANT BLUE

Page: 2/6

Last revised date: 2000-02-01

Print date: 2000-02-01

P/N-no.: M1201015

SDS-ID: US-D/1.0

5. FIRE-FIGHTING MEASURES

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.

Specific hazards: The product is highly flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

Protective equipment for fire-fighters: Use air-supplied respirator during fire fighting.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not smoke or use open fire or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. For personal protection, see point 8.

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

Methods for cleaning up: Large quantities of concentrate should not be discharged into the drain but removed with absorbing material. Do not use sawdust or other combustible material. For waste disposal, see point 13.

7. HANDLING AND STORAGE

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

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

Technical precautions: Local exhaust is recommended.

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

Storage conditions: Store in a cool and well-ventilated place.

MATERIAL SAFETY DATA SHEET

according to EEC Directives 91/155/EEC and 93/112/EC



Product name: DP-LUBRICANT BLUE

Page: 3/6

Last revised date: 2000-02-01

Print date: 2000-02-01

P/N-no.: M1201015

SDS-ID: US-D/1.0

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapours.

<u>Chemical name:</u>	<u>Exposure limits:</u>	<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
Ethanol	1000ppm	TWA	A4	ACGIH (1999)
Ethyl alcohol (Ethanol)	1000ppm 1900mg/m ³	TWA		OSHA 1998
Isopropyl alcohol	400	TWA		ACGIH (1999)
	500ppm	STEL		
Isopropyl alcohol	400ppm 980mg/m ³	TWA	-	OSHA 1998

Respiratory equipment: In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. Use respiratory equipment with gas filter, type A2.

Hand protection: Wear protective gloves. Risk of contact: Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Consult the glove supplier to find the most suitable gloves.

Eye protection: Risk of contact: Wear goggles/face shield.

Skin protection: No special precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	colourless liquid
Odour:	odour of alcohol
pH:	not relevant
Boiling point:	not available
Flash point:	13°C
Explosive properties:	3.2-19.0 vol%
Relative density:	not available
Solubility:	soluble in water

10. STABILITY AND REACTIVITY

Stability: Stable.

Conditions/ materials to avoid: Direct sunlight. Heating. Oxidizing agents.

Hazardous decomposition products: None in particular.

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Product name: DP-LUBRICANT BLUE

Page: 4/6

Last revised date: 2000-02-01

Print date: 2000-02-01

P/N-no.: M1201015

SDS-ID: US-D/1.0

11. TOXICOLOGICAL INFORMATION

In case of insufficient ventilation, extensive use may cause the damage described below.

Inhalation: Small quantities: Vapours may irritate throat and respiratory system and cause coughing. Large quantities: Vapours may irritate throat and respiratory system and cause headache, dizziness and dullness. In serious cases, unconsciousness and permanent damage to the nervous system, including the brain, and liver may be seen.

Skin contact: Prolonged contact may cause redness, irritation and dry skin. Contains 2-propanol which may penetrate the skin.

Eye contact: Splashes may irritate.

Ingestion: May irritate and cause malaise.

Specific effects: Frequent inhalation of even small concentrations may cause irritability, fatigue, memory failure and in time permanent damage to the nervous system, including the brain, and possibly kidneys, too.
Carcinogenicity:
National Toxicology Program (NTP): No.
I.A.R.C. Monographs: No.
OSHA: No.

12. ECOLOGICAL INFORMATION

Mobility: The product is miscible with water. May spread in water systems. The product contains organic solvents which will evaporate easily from all surfaces.

Degradability: The product is biodegradable.

Ecotoxicity: The product is not expected to be hazardous to the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of waste and residues according to agreement with local authorities.

Waste from residues: EWC-code: 20 01 13

Contaminated packaging: Dispose of contaminated packings as residue.

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Product name: DP-LUBRICANT BLUE

Page: 5/6

Last revised date: 2000-02-01

Print date: 2000-02-01

P/N-no.: M1201015

SDS-ID: US-D/1.0

14. TRANSPORT INFORMATION

UN-number: 1993 Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol)

Sea (IMDG): **Class:** 3.2 **PG:** II **MP:** No

EmS: 3-07 **MFAG:** Subsection 4.2

PG: To be handled locally.

Land (RID/ADR): **Class:** 3 **Item:** 3 **Letter:** b

Air (ICAO/IATA): **Class:** 3 **PG:** II

15. REGULATORY INFORMATION

Labelling:



Highly flammable

R11 Highly flammable.
S7 Keep container tightly closed.
S16 Keep away from sources of ignition - No smoking.

NFPA Rating:



Specific provisions: TSCA: Listed.

National regulation: Europe/USA:
This Safety Data Sheet has been prepared according to the EU-regulation.

EC Directives 67/548/EEC on dangerous substances and 88/379/EEC on dangerous preparations (up to and inclusive of the 25th adaptation).
Threshold Limit Values (1999), 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, 1998.

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Product name: DP-LUBRICANT BLUE

Page: 6/6

Last revised date: 2000-02-01

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P/N-no.: M1201015

SDS-ID: US-D/1.0

16. OTHER INFORMATION

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

Transport information (ICAO):

Pass: 302/1 I - 305/5 I

Cargo: 303/30 I - 307/60 I

Released: 16 December 1994

Approved by DTC.

Frank G. Berglund

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.

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