

Safety Data Sheet

According to 1907/2006 EEC Article 31

Printing date: 08.10.2010

Version: 3

Revision: 08.10.2010

1 Identification of the substance/mixture and of the company/undertaking

- **Product details**
- **Trade name:** Dynalight Coating
- **Article number:** 22029
- **Application of the substance / the preparation** Spray varnish
- **Manufacturer/Supplier:**
 Dynabrade Inc.
 8989 Sheridan Drive
 NY 14031-1490
 USA
 Tel: (716) 631-0100
 Fax: (716) 631-2073
- **Further information obtainable from:** Jeremy Moitry, Tel: 003527684941
- **Information in case of emergency:** During normal opening hours: Tel 003527684941

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

Skin Irrit. 2 H315 Causes skin irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R41: Risk of serious damage to eyes.



Xi; Sensitising

R43: May cause sensitisation by skin contact.



F+; Extremely flammable

R12: Extremely flammable.

R67: Vapours may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

Has a narcotizing effect.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
- **Hazard pictograms**



GHS02 GHS05 GHS07

- **Signal word** Danger

- **Hazard statements**

H222 Extremely flammable aerosol.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

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.

Buildup of explosive mixtures possible without sufficient ventilation.

- **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- **Code letter and hazard designation of product:**



Xi Irritant

F+ Extremely flammable

- **Hazard-determining components of labelling:**

formaldehyde

- **Risk phrases:**

12 Extremely flammable.

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.

67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

2 Keep out of the reach of children.

16 Keep away from sources of ignition - No smoking.

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

46 If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

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· Special labelling of certain preparations:

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.

Buildup of explosive mixtures possible without sufficient ventilation.

· Classification in accordance with Directive 75/324/EEC: Extremely flammable**3 Composition/information on ingredients****· Chemical characterization****· Description:**

Active substance with propellant

· Dangerous components:

CAS: 115-10-6 EINECS: 204-065-8	dimethyl ether F+ R12 ----- GHS02 Flam. Gas 1, H220; GHS04 Press. Gas, H280	25-<50%
CAS: 64-17-5 EINECS: 200-578-6	ethanol F R11 ----- GHS02 Flam. Liq. 2, H225	25-<50%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol Xi R36; F R11 R67 ----- GHS02 Flam. Liq. 2, H225; GHS07 Eye Irrit. 2, H319; STOT SE 3, H336	10-<25%
CAS: 71-36-3 EINECS: 200-751-6	butanol Xn R22; Xi R37/38-41 R10-67 ----- GHS02 Flam. Liq. 3, H226; GHS05 Eye Dam. 1, H318; GHS07 Acute Tox. 4, H302; STOT SE 3, H335+H336; Skin Irrit. 2, H315	10-<25%
CAS: 50-00-0 EINECS: 200-001-8	formaldehyde T R23/24/25; C R34; Xn R40; Xi R43 Carc. Cat. 3 ----- GHS06 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; GHS08 Carc. 2, H351; GHS05 Skin Corr. 1B, H314; Skin Sens. 1, H317	0.1-<1.0%

4 First aid measures**· After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.**· After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**· After swallowing:** Do not induce vomiting; call for medical help immediately.**5 Firefighting measures****· Suitable extinguishing agents:**

Water haze

Fire-extinguishing powder

Carbon dioxide

Alcohol resistant foam

· For safety reasons unsuitable extinguishing agents: Water with full jet

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- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:** Ensure adequate ventilation.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:**
Observe official regulations on storing packagings with pressurized containers.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

115-10-6 dimethyl ether

WEL	Short-term value: 958 mg/m ³ , 500 ppm
	Long-term value: 766 mg/m ³ , 400 ppm

64-17-5 ethanol

WEL	Long-term value: 1920 mg/m ³ , 1000 ppm
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67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m ³ , 500 ppm
	Long-term value: 999 mg/m ³ , 400 ppm

71-36-3 butanol

WEL	Short-term value: 154 mg/m ³ , 50 ppm
Sk	

50-00-0 formaldehyde

WEL	Short-term value: 2.5 mg/m ³ , 2 ppm
	Long-term value: 2.5 mg/m ³ , 2 ppm

- **Additional information:** The lists valid during the making were used as basis.

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- **Personal protective equipment:**

- **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

Filter AX/P2

- **Protection of hands:**



Protective gloves

Solvent resistant gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves** Nitrile rubber, NBR

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Use protective suit.

9 Physical and chemical properties

- **General Information**

- **Appearance:**

Form: Aerosol

Colour: According to product specification

- **Odour:** Characteristic

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: -24°C

- **Flash point:** -42°C

- **Ignition temperature:** 235°C

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

Lower: 1.5 Vol %

Upper: 18.6 Vol %

- **Vapour pressure at 20°C:** 5200 hPa

- **Density at 20°C:** 0.791 g/cm³

- **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

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· Solvent content:		
Organic solvents:		99.3 %
Solids content:		0.7 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

67-63-0 propan-2-ol

Oral	LD50	4570 mg/kg (rat)
Dermal	LD50	13400 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

71-36-3 butanol

Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3400 mg/kg (rbt)
Inhalative	LC50/4 h	8000 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Hazard label** 2.1
- **Description of goods:** 1950 AEROSOLS
- **Limited quantities (LQ)** LQ2
- **Transport category** 2
- **Tunnel restriction code** D

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No
- **Proper shipping name:** AEROSOLS

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable

- **UN "Model Regulation":** UN1950, AEROSOLS, 2.1

15 Regulatory information

- **Chemical safety assessment** A Chemical Safety Assessment has not been carried out.
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
I	0,1-<1,0
NK	50-100

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GB

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- **VOC-CH** 99.30 %
- **VOC-EU** 785.5 g/l
- **Danish MAL Code** 5-3

* 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- | | |
|-----------|---|
| H220 | Extremely flammable gas. |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H280 | Contains gas under pressure; may explode if heated. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H351 | Suspected of causing cancer. |
| | |
| R10 | Flammable. |
| R11 | Highly flammable. |
| R12 | Extremely flammable. |
| R22 | Harmful if swallowed. |
| R23/24/25 | Toxic by inhalation, in contact with skin and if swallowed. |
| R34 | Causes burns. |
| R36 | Irritating to eyes. |
| R37/38 | Irritating to respiratory system and skin. |
| R40 | Limited evidence of a carcinogenic effect. |
| R41 | Risk of serious damage to eyes. |
| R43 | May cause sensitisation by skin contact. |
| R67 | Vapours may cause drowsiness and dizziness. |

· **Department issuing MSDS:** Research & Development

· **Contact:** Jeremy Moitry, Tel: 003527684941

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 MAL-Code: Måleteknisk Arbejdshygienisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered. ***