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

· Product details

· Trade name: Dynalight Degreaser

· Article number: 22025

· Application of the substance / the preparation Surface cleaning

· 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

· Hazard description:





Xi Irritant

F Highly flammable

· 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.

Has a narcotizing effect.

R 11 Highly flammable.

R 36 Irritating to eyes.

R 67 Vapours may cause drowsiness and dizziness.

· Classification system:

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

· GHS label elements



Danger

H225 - Highly flammable liquid and vapour.



Warning

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

· Prevention:

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

 $P241\ Use\ explosion-proof\ electrical/ventilating/lighting/equipment.$

· Response:

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

· Storage:

P405 Store locked up.

· Disposal:

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

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3 Composition/information on ingredients

- · Chemical characterization
- · Description:

· Dangerous components:			
CAS: 67-63-0	propan-2-ol	50-100%	
EINECS: 200-661-7	Xi, F; R 11-36-67		
	Danger: flame 2.6/2		
	Warning: exclamation mark 3.3/2, 3.8/3		
CAS: 64-17-5	ethanol	2.5-<10%	
EINECS: 200-578-6	F; R 11		
	Danger: flame 2.6/2		

4 First-aid measures

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing: Do not induce vomiting; call for medical help immediately.

5 Fire-fighting measures

· Suitable extinguishing agents:

Water haze

Fire-extinguishing powder

Carbon dioxide

Alcohol resistant foam

· 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 product to reach sewage system or any water course.

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

7 Handling and storage

- · Handling:
- · Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · 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.

Store in cool, dry conditions in well sealed receptacles.

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:

67-63-0 propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm Long-term value: 999 mg/m³, 400 ppm

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

- · Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

 \cdot 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.

Filter A

· 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 trough 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

Form: Fluid

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	(Contd. of page
Colour:	Clear
Odour:	Alcohol-like
· Change in condition	
Melting point/Melting range	: -89.5°C
Boiling point/Boiling range:	82°C
· Flash point:	13°C
· Ignition temperature:	425°C
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapou mixtures are possible.
· Explosion limits:	
Lower:	2 Vol %
Upper:	12 Vol %
· Vapour pressure at 20°C:	43 hPa
· Density at 20°C:	0.79 g/cm³
· Solubility in / Miscibility with water at 20°C:	1 g/l
· Solvent content: Organic solvents:	100.0 %

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)	

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · 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

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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.

- · Uncleaned packaging:
- · **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

· Land transport ADR/RID (cross-border)



· **ADR/RID class:** 3 Flammable liquids.

Danger code (Kemler): 33
UN-Number: 1987
Packaging group: II
Hazard label 3

· Description of goods: 1987 ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))

Limited quantities (LQ) LQ4
 Transport category 2
 Tunnel restriction code D/E

· Maritime transport IMDG:



· IMDG Class: 3
· UN Number: 1987
· Label 3
· Packaging group: II
· EMS Number: F-E,S-D
· Marine pollutant: No

 $\cdot \textbf{Proper shipping name:} \ \ \text{ALCOHOLS, N.O.S.} \ (ISOPROPANOL \ (ISOPROPYL \ ALCOHOL))$

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: 3 · UN/ID Number: 1987 · Label 3

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· Packaging group: II

· Proper shipping name: ALCOHOLS, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))

· UN "Model Regulation": UN1987, ALCOHOLS, N.O.S., 3, II

15 Regulatory information

· 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 Highly flammable

· Risk phrases:

- 11 Highly flammable.
- 36 Irritating to eyes.
- 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.
- 23 Do not breathe fumes/aerosol.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

· National regulations:

· Technical instructions (air):

Class	Share in %
NK	50-100

- · **VOC-CH** 100.00 %
- · VOC-EU 790.0 g/l
- · Danish MAL Code 4-1

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 R-phrases

- 11 Highly flammable.
- 36 Irritating to eyes.
- 67 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

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ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

MAL-Code: Måleteknisk Arbejdshygiejnisk 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. *