



SAFETY DATA SHEET

Freedom Cav

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

PRODUCT NAME Freedom Cav

SUPPLIER Dodge Company Ltd,
Units 11/15 Ardglen Industrial
Estate,
Whitchurch, Hampshire,
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PRODUCT NO. 241801

2 HAZARDS IDENTIFICATION

Highly flammable. Vapours may cause drowsiness and dizziness. Irritating to eyes.

CLASSIFICATION (1999/45) Xi;R36. F;R11. R67.

PHYSICAL AND CHEMICAL HAZARDS

Heating will generate vapours which may form explosive vapour/air mixtures. When handled correctly, undamaged units represent no danger. Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification (67/548)
PROPAN-2-OL	200-661-7	67-63-0	30-60%	F;R11 Xi;R36 R67

The Full Text for all R-Phrases are Displayed in Section 16

4 FIRST-AID MEASURES

GENERAL INFORMATION

Remove affected person from source of contamination. Get medical attention.

NOTES TO THE PHYSICIAN

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

INHALATION

Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and bring these instructions.

INGESTION

Get medical attention immediately! Consult a physician for specific advice.

SKIN CONTACT

Remove contaminated clothing immediately and wash skin with soap and water.

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

PROTECTIVE MEASURES IN FIRE

Use air-supplied respirator during fire fighting. Wear full protective clothing.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

For personal protection, see section 8.

ENVIRONMENTAL PRECAUTIONS

Not relevant considering the small amounts used.

Freedom Cav

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Let evaporate. Keep out of confined spaces because of explosion risk. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame.

STORAGE PRECAUTIONS

Keep away from heat, sparks and open flame. Keep containers tightly closed.

STORAGE CLASS

Flammable liquid storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
PROPAN-2-OL	WEL	400 ppm	999 mg/m ³	500 ppm	1250 mg/m ³	

WEL = Workplace Exposure Limit.

PROTECTIVE EQUIPMENT



PROCESS CONDITIONS

Provide eyewash station.

ENGINEERING MEASURES

Provide adequate ventilation.

RESPIRATORY EQUIPMENT

In case of inadequate ventilation use suitable respirator.

HAND PROTECTION

Protective gloves must be used if there is a risk of direct contact or splash.

EYE PROTECTION

Goggles/face shield are recommended.

OTHER PROTECTION

Wear suitable protective clothing as protection against splashing or contamination.

HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash hands after handling. Wash promptly with soap & water if skin becomes contaminated.

SKIN PROTECTION

Wear apron or protective clothing in case of splashes.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
COLOUR	Straw		
ODOUR	Apple scent		
PHYSICAL DATA COMMENTS	Information given concerns the major ingredient.		
SOLUBILITY	Slightly soluble in water.		
BOILING POINT (°C)	63-66 760 mm Hg	RELATIVE DENSITY	0.965-0.975 20
VAPOUR DENSITY (air=1)	Greater than 1	VAPOUR PRESSURE	Unknown mm Hg
EVAPORATION RATE	Greater than 1 BuAc=1	VOLATILE BY VOL. (%)	90
FLASH POINT (°C)	50-54c TCC (Tag closed cup).	FLAMMABILITY LIMIT - LOWER(%)	6
FLAMMABILITY LIMIT - UPPER(%)	36.5		

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid contact with strong oxidisers. Anionic Polymers Avoid heat, flames and other sources of ignition.

Freedom Cav

HAZARDOUS POLYMERISATION

Will not polymerise.

MATERIALS TO AVOID

Acids, oxidising. Strong alkalis.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 5628 mg/kg (oral rat)

INHALATION

Toxic by inhalation.

INGESTION

Toxic if swallowed. Drowsiness, dizziness, disorientation, vertigo.

SKIN CONTACT

Contains components which may penetrate the skin. Irritating to skin.

EYE CONTACT

Irritating to eyes. May cause severe irritation to eyes.

TARGET ORGANS

Heart & cardiovascular system. Kidneys. Liver.

MEDICAL SYMPTOMS

Visual disturbances, incl. blurred vision.

MEDICAL CONSIDERATIONS

Liver and/or kidney problems.

12 ECOLOGICAL INFORMATION

LC 50, 96 Hrs, FISH mg/l 10800

EC 50, 48 Hrs, DAPHNIA, mg/l 24500

IC 50, 72 Hrs, ALGAE, mg/l 8000

MOBILITY

The product is partly soluble in water. May spread in the aquatic environment.

BIOACCUMULATION

Will not bio-accumulate.

13 DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

The packaging must be empty (drop-free, when inverted)

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION



UK ROAD CLASS	3		
PROPER SHIPPING NAME	ISOPROPANOL (ISOPROPYL ALCOHOL)		
UN NO. ROAD	1219	UK ROAD PACK GR.	II
ADR CLASS NO.	3	ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	II	TUNNEL RESTRICTION CODE	(D/E)
HAZARD No. (ADR)	33	ADR LABEL NO.	3
HAZCHEM CODE	•2YE	CEFIC TEC(R) NO.	30GF1-I+II
RID CLASS NO.	3	RID PACK GROUP	II
UN NO. SEA	1219	IMDG CLASS	3
IMDG PACK GR.	II	EMS	F-E, S-D
MARINE POLLUTANT	No.	UN NO. AIR	1219

Freedom Cav

AIR CLASS

3

AIR PACK GR.

II

15 REGULATORY INFORMATION

LABELLING



Irritant



Highly Flammable

RISK PHRASES

R11 Highly flammable.
 R36 Irritating to eyes.
 R67 Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S9 Keep container in a well-ventilated place.
 S16 Keep away from sources of ignition - No smoking.
 S25 Avoid contact with eyes.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S51 Use only in well-ventilated areas.
 S60 This material and its container must be disposed of as hazardous waste.

16 OTHER INFORMATION

REVISION DATE 08/07/2010

REV. NO./REPL. SDS GENERATED 4

DATE November 2008

RISK PHRASES IN FULL

R11 Highly flammable.
 R36 Irritating to eyes.
 R67 Vapours may cause drowsiness and dizziness.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.