

## SAFETY DATA SHEET DEFIANCE DE-ICER

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name DEFIANCE DE-ICER  
Product No. ESKI DE-ICER

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses As product description

#### 1.3. Details of the supplier of the safety data sheet

Supplier James Briggs Limited  
Salmon Fields,  
Royton,  
Oldham, Lancashire  
OL2 6HZ,  
England  
0161 627 0101  
sds@jamesbriggs.co.uk

#### 1.4. Emergency telephone number

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Aerosol 1 - H222
Human health	Not classified.
Environment	Not classified.

#### 2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word	Danger	
Hazard Statements	H222 Extremely flammable aerosol.	
Precautionary Statements	P102	Keep out of reach of children.
	P261	Avoid breathing vapour/spray.
	P271	Use only outdoors or in a well-ventilated area.
	P501	Dispose of contents/container in accordance with local regulations.
Supplementary Precautionary Statements	P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
	P211	Do not spray on an open flame or other ignition source.
	P251	Pressurized container: Do not pierce or burn, even after use.
	P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
Supplemental label information		Contains:
	SOL012	Propan-2-ol

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H229

Pressurised container: May burst if heated

## 2.3. Other hazards

None noted

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

AMMONIA ...%			< 1%
CAS-No.: 1336-21-6	EC No.: 215-647-6	Registration Number: 01-2119488876-14 -XXXX	
Classification (EC 1272/2008) Skin Corr. 1B - H314 STOT SE 3 - H335 Aquatic Acute 1 - H400		Classification (67/548/EEC) C;R34 N;R50	
BUTANE			1-5%
CAS-No.: 106-97-8	EC No.: 203-448-7	Registration Number: Exempt - Naturally occurring	
Classification (EC 1272/2008) Flam. Gas 1 - H220		Classification (67/548/EEC) F+;R12	
ETHANEDIOL			5-10%
CAS-No.: 107-21-1	EC No.: 203-473-3	Registration Number: 01-2119456816-28- XXXX	
Classification (EC 1272/2008) Acute Tox. 4 - H302		Classification (67/548/EEC) Xn;R22	
ETHANOL			10-30%
CAS-No.: 64-17-5	EC No.: 200-578-6		
Classification (EC 1272/2008) Flam. Liq. 2 - H225		Classification (67/548/EEC) F;R11	
ISOBUTANE			< 1%
CAS-No.: 75-28-5	EC No.: 200-857-2	Registration Number: Exempt - Naturally occurring	
Classification (EC 1272/2008) Flam. Gas 1 - H220		Classification (67/548/EEC) F+;R12	
METHANOL			< 1%
CAS-No.: 67-56-1	EC No.: 200-659-6		

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Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370	Classification (67/548/EEC) F;R11 T;R23/24/25,R39/23/24/25
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PROPAN-2-OL	10-30%	
CAS-No.: 67-63-0	EC No.: 200-661-7	Registration Number: 01-2119457558-25-XXXX
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R67	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: FIRST AID MEASURES

#### **4.1. Description of first aid measures**

General information

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

DO NOT INDUCE VOMITING! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.

Skin contact

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

#### **4.2. Most important symptoms and effects, both acute and delayed**

General information

NOTE! Effects may be delayed. Keep affected person under observation.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

No specific first aid measures noted.

### SECTION 5: FIREFIGHTING MEASURES

#### **5.1. Extinguishing media**

Extinguishing media

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

#### **5.2. Special hazards arising from the substance or mixture**

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire.

#### **5.3. Advice for firefighters**

Special Fire Fighting Procedures

Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Not applicable

#### **6.2. Environmental precautions**

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Not applicable

## 6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Let evaporate. Keep out of confined spaces because of explosion risk. If leakage cannot be stopped, evacuate area.

## 6.4. Reference to other sections

Not applicable

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

### 7.2. Conditions for safe storage, including any incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

### 7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
BUTANE	WEL	600 ppm	1450 mg/m <sup>3</sup>	750 ppm	1810 mg/m <sup>3</sup>	
ETHANEDIOL	WEL		10 mg/m <sup>3</sup> (Sk)		104 mg/m <sup>3</sup> (Sk)	
ETHANOL	WEL	1000 ppm	1920 mg/m <sup>3</sup>			
METHANOL	WEL	200 ppm(Sk)	266 mg/m <sup>3</sup> (Sk)	250 ppm(Sk)	333 mg/m <sup>3</sup> (Sk)	
PROPAN-2-OL	WEL	400 ppm	999 mg/m <sup>3</sup>	500 ppm	1250 mg/m <sup>3</sup>	

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

### 8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Use chemical cartridge protection with appropriate cartridge.

Hand protection

Use protective gloves.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Colourless.
Odour	Characteristic.
Solubility	Soluble in water.
Flammability Limit - Lower(%)	0.8
Flammability Limit - Upper(%)	9.0

### 9.2. Other information

Not determined.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No specific reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions.

### 10.3. Possibility of hazardous reactions

Not known.

### 10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidising agents. Strong alkalis. Strong mineral acids.

### 10.5. Incompatible materials

Materials To Avoid

See section 10.4

### 10.6. Hazardous decomposition products

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Inhalation

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach.

Skin contact

Prolonged or repeated exposure may cause severe irritation. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

Eye contact

Irritating to eyes. May cause chemical eye burns.

Route of entry

Inhalation. Skin and/or eye contact.

## SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

### 12.1. Toxicity

Data set not currently available.

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## **12.2. Persistence and degradability**

Not applicable

## **12.3. Bioaccumulative potential**

Bioaccumulative potential

No data available on bioaccumulation.

## **12.4. Mobility in soil**

Mobility:

Not determined

## **12.5. Results of PBT and vPvB assessment**

Not applicable

## **12.6. Other adverse effects**

Not known.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **13.1. Waste treatment methods**

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

## **SECTION 14: TRANSPORT INFORMATION**

### **14.1. UN number**

UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

### **14.2. UN proper shipping name**

Proper Shipping Name                      AEROSOLS

### **14.3. Transport hazard class(es)**

ADR/RID/ADN Class	2
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	



### **14.4. Packing group**

ADR/RID/ADN Packing group	N/A
IMDG Packing group	N/A
ICAO Packing group	N/A

### **14.5. Environmental hazards**

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Environmentally Hazardous Substance/Marine Pollutant  
No.

## **14.6. Special precautions for user**

EMS F-D, S-U  
Tunnel Restriction Code (D)

## **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

### **SECTION 15: REGULATORY INFORMATION**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Statutory Instruments

The Aerosol Dispensers (Amendment) Regulations 2014 No.1130

Guidance Notes

Workplace Exposure Limits EH40.

Introduction to Local Exhaust Ventilation HS(G)37.

EU Legislation

The Aerosol Dispensers Directive 1975/324 EEC

Regulation (EC) No.1272/2008 The Classification, Labelling and Packaging of substances and mixtures Regulations

Regulation (EC) No. 1907/2006 The Registration, Evaluation, Authorisation and Restriction of Chemicals Regulations (REACH)

2001/95/EC The General Product Safety Directive (GPSD)

Commission Regulation (EU) 2015/830 Requirements for the compilation of safety data sheets (amending REACH)

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

#### **15.2. Chemical Safety Assessment**

### **SECTION 16: OTHER INFORMATION**

Revision Date 16/10/2017

Revision 14

Supersedes date 14/01/2016

Hazard Statements In Full

H220 Extremely flammable gas. , H222 Extremely flammable aerosol. , H225 Highly flammable liquid and vapour. , H301 Toxic if swallowed. , H302 Harmful if swallowed. , H311 Toxic in contact with skin. , H314 Causes severe skin burns and eye damage. , H319 Causes serious eye irritation. , H331 Toxic if inhaled. , H335 May cause respiratory irritation. , H336 May cause drowsiness or dizziness. , H370 Causes damage to organs <<Organs>>. , H400 Very toxic to aquatic life.

#### 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.