

SAFETY DATA SHEET

R227 RAPID DE-ICER



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

PRODUCT NAME **R227 RAPID DE-ICER**

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2 HAZARDS IDENTIFICATION

Extremely flammable.

CLASSIFICATION **F+;R12.**

3 COMPOSITION INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
AMMONIA ...%	215-647-6	1336-21-6	< 1%	C;R34 N;R50
BUTANE	203-448-7	106-97-8	1-5%	F+;R12
ETHANEDIOL	203-473-3	107-21-1	5-10%	Xn;R22
ETHANOL	200-578-6	64-17-5	10-30%	F;R11
ISOBUTANE	200-857-2	75-28-5	< 1%	F+;R12
METHANOL	200-659-6	67-56-1	1-5%	F;R11 T;R23/24/25,R39/23/24/25
PROPANE	200-827-9	74-98-6	1-5%	F+;R12

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

4 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.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

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

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.

UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol cans may explode in a fire.

6 ACCIDENTAL RELEASE MEASURES

R227 RAPID DE-ICER

SPILL CLEAN UP METHODS

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.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

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.

STORAGE PRECAUTIONS

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

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
BUTANE	WEL	600 ppm	1450 mg/m3	750 ppm	1810 mg/m3	
ETHANEDIOL	WEL		52 mg/m3(Sk)		104 mg/m3(Sk)	
ETHANOL	WEL	1000 ppm	1920 mg/m3			
ISOBUTANE	WEL	800 ppm		800 ppm		
METHANOL	WEL	200 ppm(Sk)	266 mg/m3(Sk)	250 ppm(Sk)	333 mg/m3(Sk)	
PROPANE		Asphyxiating	Asphyxiating	Asphyxiating	Asphyxiating	

WEL = Workplace Exposure Limit.

INGREDIENT COMMENTS

OES = Occupational Exposure Standard. MEL = Maximum Exposure Limit.

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 Workplace 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 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol		
COLOUR	Typical		
ODOUR	Characteristic		
FLAMMABILITY LIMIT - LOWER(%)	0.8	FLAMMABILITY LIMIT - UPPER(%)	9.0

10 STABILITY AND REACTIVITY

R227 RAPID DE-ICER

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

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

HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

11 TOXICOLOGICAL INFORMATION

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.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

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

14 TRANSPORT INFORMATION



UK ROAD CLASS	2		
PROPER SHIPPING NAME	AEROSOLS		
UN NO. ROAD	1950	UK ROAD PACK GR.	N/A
ADR CLASS NO.	2	ADR CLASS	Class 2: Gases
ADR PACK GROUP	N/A	TUNNEL RESTRICTION CODE	(D)
ADR LABEL NO.	2.1	CEFIC TEC(R) NO.	20G5F
RID CLASS NO.	2	RID PACK GROUP	N/A
UN NO. SEA	1950	IMDG CLASS	2.1
IMDG PACK GR.	N/A	EMS	F-D, S-U
MARINE POLLUTANT	No.	UN NO. AIR	1950
AIR CLASS	2.1	AIR PACK GR.	N/A

15 REGULATORY INFORMATION

LABELLING

R227 RAPID DE-ICER



Extremely Flammable

RISK PHRASES

R12 Extremely flammable.

SAFETY PHRASES

S16 Keep away from sources of ignition - No smoking.
 S51 Use only in well-ventilated areas.
 S2 Keep out of the reach of children
 S23 Do not breathe vapour/spray.

UK REGULATORY REFERENCES

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.

The Control of Substances Hazardous to Health Regulations 2002.

STATUTORY INSTRUMENTS

Control of Substances Hazardous to Health.

Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

Introduction to Local Exhaust Ventilation HS(G)37.

CHIP for everyone HSG(108).

16 OTHER INFORMATION

REVISION DATE 01/03/2011

REV. NO./REPL. SDS GENERATED 4

RISK PHRASES IN FULL

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.
 R37 Irritating to respiratory system.
 R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
 R50 Very toxic to aquatic organisms.