

**PRODUCT SAFETY DATA SHEET****Z.3309 LOW FREEZE ADDITIVE****1. Identification of the Substance / Preparation and Company**

Name of Manufacturer/Supplier

Dart Fire Protection Centre

Last Revision date 24/10/94

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Product Name: **Z.3309**

Product Type:

**Low Freeze Additive**

Application:

Additive for Fire Extinguishers.

**2. Composition / Information on Ingredients.**

General:

Blend of Monoethylene Glycol, Corrosion  
Inhibitors, Biocide & Additives

Hazardous Ingredients:

R &amp; S Phrases:

Concentration:

Monoethylene Glycol

Xn R22

90%

S2

**3. Hazards Identification.**

Health &amp; Safety Hazards:

Product is harmful or fatal if swallowed.

Environmental Hazard:

Product is slowly biodegradable.

Special Hazards after use:

No additional hazards after use provided  
product is used for purpose intended.

Pressure Injection:

Injection of all products will cause  
severed internal damage if not promptly  
treated.**4. First Aid Measures**

Eyes:

Irrigate immediately with copious  
quantities of water. If irritation persists,  
seek medical attention.

Skin:

Wash thoroughly with soap &amp; water.

Inhalation:

Remove to fresh air. If effects persist,  
seek medical advice.

Ingestion:

**TAKE PATIENT IMMEDIATELY TO  
HOSPITAL SHOWING THIS SHEET.**

Pressure Injection: Always obtain immediate medical attention although the injury may appear to be minor.

## 5. Fire Fighting Measures.

Flammability: Product not classified as flammable but is inherently combustible.  
Flash Point: (°C. pmcc): 120oC  
Extinguishing Media: Use foam, dry powder, Co2. Use water fog to cool exposed surfaces.  
Products of Combustion; Carbon Dioxide & carbon monoxide.

## 6. Accidental Release Measures.

Personal Precautions: Spilt products present a significant slip hazard  
Environmental Precautions: Prevent entry into drains, sewers & watercourses.  
Decontamination Procedures: Soak up with inert absorbent material or contain & remove by pumping or best available means.

## 7. Handling & Storage.

Keep containers tightly closed.  
Store drums undercover in racking protected from mechanical impact. If stored outside, ingress of water should be avoided e.g. by placing drums on their side.  
Avoid sources of ignition.  
Provide suitable mechanical equipment for safe handling of drums & heavy packages.  
A bonded storage area may be required.  
May soften certain rubbers.  
If the product is to be heated avoid direct high temperature heat sources.  
Storage temperatures: 5-35oC

## 8. Exposure Controls /Personal Protection.

Engineering Control: Local exhaust ventilation is recommended when excessive product misting occurs.  
Measure.  
Personal Protection: Avoid skin & eye contact. Wear impervious gloves (e.g. of PVC) in cases of prolonged or repeated contact. Change contaminated clothing and thoroughly clean before use.

## 9. Physical & Chemical Properties.

Appearance:	Clear Pink Liquid
Odour:	Mild
Flash Point (closed cup) °C	120
Autoflammability (°C) 400	Not known
Relative Density @ 20°C	1 – 13

Boiling Point (°C) 200 – 26	150
Pour point/Melting point (°C) N/A	-15°C
Explosive Properties (%):	Not Known
Water Solubility	Completely Soluble in Water.
Fat Solubility.	Insoluble
Kinematic Viscosity at 40°C (mm <sup>2</sup> s <sup>-1</sup> )	Not Known

## 10. Stability and Reactivity.

Stability:	Stable. will not polymerise
Conditions to avoid:	Avoid high storage temperatures and sources of ignition.
Materials to Avoid:	Storage oxidising agents.
Hazardous Decomposition Products:	Irritant fumes DO NOT BREATHE products of decomposition.

## 11. Toxicological Information.

The following toxicological assessment is based on knowledge of the toxicity of the product components. Estimated oral LD50, rat>5840mg/kg.

### Health Effects

On Eyes:	May cause transient irritation
On Skin:	Unlikely to cause harm on brief or occasional contact.
By Inhalation:	At elevated temperatures, particularly if ventilation is inadequate, irritation to the nose & throat may occur
By Ingestion:	Harmful or fatal if swallowed May cause nausea, vomiting & diarrhoea. May affect central nervous system. May lead to kidney damage or failure.
Others:	Lethal dose to humans of 100mls.

## 12. Ecological Information.

Biodegradability:	<50% (CEC 1-33 –T—82)
Chemical Oxygen Demand (mgO <sub>2</sub> /l):	Not determined.

## 13. Disposal Recommendations.

Place used and contaminated materials/packaging in suitable containers. Dispose of the controlled waste in accordance with Duty of Care regulations (Environmental Protection Act 1990 – Section 34 (7) using a licensed waste disposal company.

## 14. Transport Information.

Classification for transport: Not classified as hazardous for transport.

UN Number:	N/A	Packaging Group:	N/A
Shipping Name:		N/A	
IMO Class	N/A	Marine pollutant:	No
ADR/RID	N/A	ICOA/IATA	

### 15. Regulatory Information.

Hazard Label data:	Harmful Xn
Statutory Instruments:	Risk phase RZZ – Harmful if swallowed. Safety Phase S2 – keep out of reach of children

### 16. Other Information.

The data and advice given apply when the product is sold for the stated applications. The product is not sold as suitable for any other applications. Use of the product for applications other than stated in this sheet may give rise to risks not mentioned on this sheet. You should not use this product other than for the stated application or applications without seeking advice from us.

If you have purchased the product for supply to a third party for use at work it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others that may be affected of any hazards described in this sheet and of any precautions that should be taken.

Approved Codes of Practice: Waste Management. The Duty of Care.

### Guidance Notes:

Occupational skin diseases: health & safety precautions (EH 26)  
Occupational exposure limits (EH 40)  
The Carcinogenicity on mineral oils (EK 58)  
Skin Cancer caused by oils (MS (B) 5)  
Save your skin! – Occupational Contact Dermatitis (MS (B)6)  
Dermatitis – cautionary notice (SHW 367)  
Effects of mineral oil on the skin (SHW 397)

The above publications are available from HMSO & HSE Sources