



# Material Safety Data Sheet

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Issue date: February 2009

## Ecofoam ISF136 Isocyanate

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** Ecofoam ISF136 Isocyanate

**Synonym:** None

**Use:** Polyurethane Isocyanate

**Era Polymers Pty Ltd**  
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East Botany NSW 2019  
Australia  
**Ph: +61 2 9666 3788**  
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**Emergency Advice All Hours:**  
Technical Manager +61 2 9666 3788

### 2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO NOHSC CRITERIA

**Hazard Category:** Harmful (Xn), Irritant (Xi)

**Hazard Classification:** HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD

#### RISK PHRASES

R20 Harmful by inhalation.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R42/43 May cause sensitisation by inhalation and skin contact.

#### SAFETY PHRASES

S23 Do not breathe vapour/spray.  
S36/37 Wear suitable protective clothing and gloves.  
S45 In case of accident or if you feel unwell, contact a doctor immediately and show this container or label.

**Poison Schedule:** S6 [Aust]

This material is a Scheduled **S6** Poison and must be stored, handled and used according to the appropriate regulations.

#### Warning Statement:

Avoid breathing vapours. Avoid skin and eye contact. Breathing of vapours may product asthma-like symptoms. Skin contact may cause allergic reaction.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
DIPHENYLMETHANE DIISOCYANATE (MDI), ISOMERS AND HOMOLOGUES	Greater than 60%	9016-87-9

All other ingredients not hazardous according to NOHSC Criteria.

### 4. FIRST AID MEASURES

#### Swallowed:

If swallowed, DO NOT induce vomiting but if person is conscious give water to drink. Seek medical attention immediately.



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### Eye:

If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eyelids are held open. If irritation persists seek medical attention.

### Skin:

If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with water and soap (preferably warm water, if available). Flush skin with water. Seek medical attention in the event of a skin reaction.

### Inhaled:

Move victim to fresh air and keep them warm. Apply resuscitation if victim is not breathing. If trained personnel available administer oxygen if breathing is difficult. If there is difficulty breathing, seek medical attention.

### First Aid Facilities:

Eye wash fountain, safety shower and normal washroom facilities.

### Advice to Doctor:

Treat symptomatically.

**In case of poisoning, contact Poisons Information Centre**

**In Australia call Tel: 131126**

**In New Zealand Tel: 034747000**

## 5. FIRE-FIGHTING MEASURES

### Fire/Explosion Hazard

If safe to do so, move undamaged containers from fire area.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposes on heating emitting carbon monoxide, oxides of nitrogen, isocyanate vapour, and traces of hydrogen cyanide.

**FIRE FIGHTING PROCEDURES:** Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

**EXTINGUISHING MEDIA:** Use carbon dioxide, foam or dry powder. In cases of larger fires, water spray should be used.

**HAZCHEM CODE:** None allocated [Aust]

### FLAMMABILITY

This product is not flammable.

## 6. ACCIDENTAL RELEASE MEASURES

Wear protective equipment as outlined in this MSDS. Ensure adequate ventilation/exhaust ventilation. Keep unauthorised persons away. Do not empty into drains. Remove mechanically, cover remainder with wet, absorbent material (e.g. sawdust, calcium silicate hydrate chemical binder, sand). Transfer to waste container and do not seal (evolution of carbon dioxide!). Dispose according to instructions in this MSDS.

## 7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Avoid temperatures below 20°C or above 40°C. Store away from oxidizing agents. Keep containers closed, when not using the product. Store in original packages as approved by manufacturer. Purge with nitrogen and close container when not in use. Do not eat, drink or smoke in the workplace.



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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Standards

No exposure standards are available for this product, however, the following exposure standards have been assigned by [NOHSC] to the following components of the product:

#### *DIPHENYLMETHANE DIISOCYANATE (MDI), ISOMERS AND HOMOLOGUES*

Isocyanate exposure standards (Worksafe Australia)

[TWA] 0.02 mg/m<sup>3</sup>

[STEL] 0.07 mg/m<sup>3</sup>

Notices: Sen

#### Engineering Controls

Maintain adequate ventilation at all times. Appropriately located exhaust ventilation must be provided in order to prevent occupational exposure limits from being exceeded. The air should be drawn away from the personnel handling the product and the efficiency of the exhaust equipment should be periodically checked. If exhaust ventilation is not available or inadequate, use approved respirator to Australian Standards.

#### Personal Protection Equipment

CLOTHING: PVC or natural rubber apron or splash suit.

GLOVES: PVC or natural rubber.

EYES: Chemical goggles or face shield to protect eyes.

RESPIRATORY PROTECTION: Avoid breathing of vapours/gases. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a respirator for organic vapours with disposable or with replaceable filters is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Brown liquid
<b>Boiling Point Melting Point:</b>	BP >300°C @ 1013mbar
<b>Vapour Pressure:</b>	14mbar @ 20°C
<b>Specific Gravity:</b>	1.21 @ 25°C
<b>Flash Point:</b>	230°C (DIN 51758)
<b>Flammability Limits:</b>	Not determined
<b>Solubility in Water:</b>	Reacts with water liberating carbon dioxide.

#### Other Properties

None determined.

### 10. STABILITY AND REACTIVITY

#### STABILITY:

Stable under normal conditions of use.

#### HAZARDOUS DECOMPOSITION PRODUCTS:

Emits oxides of carbon and nitrogen, isocyanate vapours and hydrogen cyanide when heated to decomposition.

#### HAZARDOUS POLYMERIZATION:

Will not occur under normal conditions of use. Polymerises at about 200°C with evolution of carbon dioxide.

#### INCOMPATIBILITIES:

Strong alkalis, acids, oxidizing agents, amines, alcohols, and water.

#### CONDITIONS TO AVOID:

Heat, flames, ignition sources and incompatibles.



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### 11. TOXICOLOGICAL INFORMATION

No adverse health effects are expected, if the product is handled in accordance with this Material Safety Data Sheet and the product label. Symptoms and effects that may arise if the product is mishandled and overexposure occurs are:

#### **ACUTE HEALTH EFFECTS:**

##### **Swallowed:**

May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

##### **Eye:**

Will cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision. Depending upon duration of exposure, eye damage may occur.

##### **Skin:**

Will cause irritation to the skin, with effects including: redness, itchiness, and possible dermatitis.

##### **Inhaled:**

Harmful if inhaled.

Will cause irritation to the nose, throat and respiratory system with effects including: dizziness, headache, coughing, loss of co-ordination and chest pains.

##### **Chronic:**

Prolonged or repeated skin contact may lead to dermatitis.

Prolonged contact may cause severe eye irritation and some form of permanent eye damage may occur.

Prolonged or repeated exposure may lead to irreversible damage to health.

Prolonged or repeated contact with this substance will cause sensitisation by inhalation.

Prolonged or repeated contact with this substance will cause sensitisation by skin contact.

##### **Toxicological Data:**

There is no other toxicological information available for this product.

### 12. ECOLOGICAL INFORMATION

##### **Ecotoxicity:**

Do not allow to escape into waters, wastewater or soil.

##### **Mobility:**

Immiscible in water. Reacts with water forming a solid and insoluble polyurea.

##### **Persistence / Degradability:**

Polyurea is inert and non-degradable.

##### **Chemical Fate Information:**

This product should not be discharged into drains, sewers or waterways.

### 13. DISPOSAL CONSIDERATIONS

Refer to appropriate local, regional and national regulations. Dispose of material through a licensed waste contractor. The waste can be disposed of in a suitable incinerator under compliance with relevant legislation.

### 14. TRANSPORT INFORMATION

##### **Road Transport**

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Packing Group:** None allocated

**Label:** Harmful (Xn), Irritant (Xi)



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### Air Transport

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Packing Group:** None allocated

**Label:** Harmful (Xn), Irritant (Xi)

### Sea Transport

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Packing Group:** None allocated

**Label:** Harmful (Xn), Irritant (Xi)

## 15. REGULATORY INFORMATION

**Poison Schedule:** S6 [Aust]

### Inventory Status:

Inventory	Status
Australia (AICS)	Y

Y = all ingredients are on the inventory.

## 16. OTHER INFORMATION

### Date of Preparation:

Issue date: 20 February 2009

Supersedes: None

### Reasons for Update:

First Issue

### Key Legend Information:

NOHSC - National Occupational Health & Safety Commission {Formerly Worksafe}[Aust]

SUSDP - Standard for the Uniform Scheduling of Drugs and Poisons [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust/NZ]

AS/NZS 1716 - Respiratory protective devices. [Aust/NZ]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]

EU - European Union

[Aust/NZ] = Australian New Zealand

[Int] = International

[US] = United States of America

Removal of the heading of *Poison Schedule [Aust]*, in section 3 and 15 of this Material Safety Data Sheet (MSDS) makes this a valid health and safety document in other international jurisdictions/countries. For full compliance please contact your Federal, State or Local regulators for further information.



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### **Disclaimer**

This MSDS summarises our best knowledge of the health and safety hazard information available on the product and the measures to be used to handle and use the product safely. Each user should read this MSDS and consider the information in connection with the way the product is intended to be handled or used.

### **Principal References:**

Information supplied by manufacturer, reference sources including the public domain.

**END OF MSDS**