

# Material Safety Data Sheet

## H3416 Hardener

Version 1.1



ATL composites

### Section 1: Identification of the Substance or Mixture and of the Supplier

Trade Name : H3416 Hardener  
Product Code : H3416  
Recommended Use : Used in conjunction with epoxy resin for adhesive and composite applications  
Company : ATL Composites  
Address : 12-14 Production Ave Ernest 4214  
Telephone : +61 7 5563 1222 (Monday-Friday 8:30am-5:00pm)  
Emergency telephone number : +61 7 5563 1222 (Monday-Friday 8:30am-5:00pm)  
Revision Date : 30 June 2008

### Section 2: Hazards Identification

Hazard Classification : HAZARDOUS SUBSTANCE. DANGEROUS GOODS

#### Risk Phrases

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R34	Causes burns.
R43	May cause sensitisation by skin contact.

#### Safety Phrases

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28	After contact with skin, wash immediately with plenty of soap-suds.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

### Section 3: Composition/Information on Ingredients

Chemical Name	CAS No.	Weight %
Isophoronediamine	2855-13-2	30 - 60
Benzyl alcohol	100-51-6	30 - 60
Benzene-1,3-dimethanamine	1477-55-0	<10
Phenol	108-95-2	<10
Polyoxyalkyleneamine	9046-10-0	<10

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### Section 4: First Aid Measures

General advice	:	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
Eye contact	:	Rinse immediately with plenty of water for at least 15 minutes.
Skin contact	:	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately.
NOTE TO PHYSICIANS:	:	Application of corticosteroid cream has been effective in treating skin irritation.
Ingestion	:	Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
Inhalation	:	Move to fresh air.

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### Section 5: Fire Fighting Measures

Suitable extinguishing media	:	Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Dry sand. Limestone powder.
Specific hazards	:	May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.
Special protective equipment for fire-fighters	:	Avoid contact with the skin. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

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### Section 6: Accidental Release Measures

Personal precautions	:	Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.
Environmental precautions :	:	Construct a dike to prevent spreading.
Methods for cleaning up :	:	Approach suspected leak areas with caution. Place in appropriate chemical waste container.
Additional advice	:	If possible, stop flow of product.

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### Section 7: Handling and Storage

#### Handling

Advice on safe handling	:	Do not get in eyes, on skin or on clothing. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated contact with skin, eyes and clothing. Wash thoroughly after handling. DANGER.
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Corrosive to the eyes. Corrosive to the skin. May be harmful if swallowed. Causes respiratory tract irritation. May cause skin sensitization. Containers, even those that have been emptied, can contain hazardous product residues. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed to prevent reuse.

### Storage

Requirements for storage areas and containers : Keep containers closed when not in use.

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### Section 8: Exposure Controls / Personal Protection

Workplace exposure standards: No exposure standards have been established for product components.

Engineering measures : Provide readily accessible eye wash stations and safety showers.  
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment:

Respiratory protection : Not required for properly ventilated areas.

Hand protection : Neoprene gloves.  
PVC disposable gloves  
Butyl-rubber  
Nitrile rubber.  
Impervious gloves.  
The breakthrough time of the selected glove(s) must be greater than the intended use period.

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection : Long sleeve shirts and trousers without cuffs.  
Impervious clothing.

Environmental exposure Controls : Construct a dike to prevent spreading.

Special instructions for protection and hygiene: Discard contaminated leather articles. Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet. Remove contaminated clothing. Drench affected area with water for at least 15 minutes

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### Section 9: Physical and Chemical Properties

Form : Low viscosity liquid  
Colour : Clear  
Odour : Amine odour  
pH : Not available  
Melting Point : Not Determined  
Boiling Point : >100°C  
Flash Point : 101°C  
Vapour Pressure : 0.13 mmHg  
Density : 0.90 to 0.95

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Solubility in water : Miscible

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### Section 10: Stability and Reactivity

Conditions to avoid : Extremes of temperature and direct sunlight.  
Exposure to water vapour.  
Materials to avoid : Strong oxidizing agents.  
Strong acids.  
Hazardous decomposition Products : Oxides of nitrogen  
Carbon monoxide  
Hazardous reactions : Stable.  
Reacts violently with strong oxidising agents.

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### Section 11: Toxicological Information

Acute oral toxicity : Moderately toxic,  $400 < LD50 \leq 2000$  mg/kg.  
Acute dermal toxicity : Moderately toxic,  $1 < LC50 \leq 5$  mg/l.  
Inhalation : Irritating to respiratory system.  
Not expected to be a relevant route of exposure, however, under conditions where exposure to vapors or mists is possible, could cause respiratory tract irritation.  
Skin : May be corrosive to the skin.  
Slightly toxic and may be harmful if absorbed through the skin. May cause skin sensitization.  
Eyes : May be corrosive to the eyes and may cause severe damage, including blindness.  
Ingestion : May be harmful if swallowed.

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### Section 12: Ecological Information

Aquatic toxicity : LC50 (96 h) : 46 - 100 mg/l  
Species : Golden orfe (*Leuciscus idus*).  
EC50 (48 h) : 6.84 mg/l  
Species : *Daphnia magna*.  
EC50 (72 h) : 140 - 200 mg/l  
Species : Algae.  
Toxicity to other organisms : No data available.  
**Persistence and degradability**  
Biodegradability : Not inherently biodegradable.  
Mobility : No data available.  
Bioaccumulation : No data is available on the product itself.

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### Section 13: Disposal Considerations

Waste from residues / unused Products : Contact supplier if guidance is required.  
Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

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### Section 14: Transport Information

ROAD & RAIL TRANSPORT:

<b>ADG U.N. Number</b>	UN 2289
<b>ADG Proper Shipping Name</b>	ISOPHORONE DIAMINE
<b>ADG DG Class</b>	8
<b>ADG Hazchem Code</b>	2X
<b>ADG Packing Group</b>	III

#### Other Information:

<b>IMDG</b>	:	UN-No 2289 Class 8 Packaging group III ERG No. F-A Description of the goods ISOPHORONEDIAMINE
<b>IATA</b>	:	UN-No 2289 Class 8 Packaging group III ERG No. 153 Description of the goods ISOPHORONEDIAMINE

### Section 15: Regulatory Information

The principal components and additives of this product are included in the Australian Inventory of Chemical Substances (AICS) or comply with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989.

<b>Poisons Schedule</b>	5
<b>Hazard Category</b>	HAZARDOUS SUBSTANCES CLASSIFICATION: Corrosive. Sensitiser.
<b>Packaging &amp; Labelling</b>	Product is labelled in accordance with the Code of Practice for Labelling Workplace Substances.

### Section 16: Other Information

#### Contact

#### Person/Point

PRODUCT INFORMATION MANAGER: (+61) 7 5563 1222  
12-14 Production Av Ernest

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.