Material Safety Data Sheet

 Issue date: February 2010

AH-45

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: AH-45
Synonym: None

Use: Polyurethane elastomer curative

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2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO NOHSC CRITERIA

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

Hazard Classification: HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD

RISK PHRASES
R21/22 Harmful in contact with skin and if swallowed.
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor.
S28 After contact with skin, wash immediately with plenty of water and soap.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S46 If swallowed, contact a doctor immediately and show this container or label.
S60 This material and/or its container must be disposed of as hazardous waste.
S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

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:
Do not swallow. Avoid skin and eye contact. Skin contact may cause allergic reaction. Avoid release into the aquatic environment.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
DI-(METHYLTHIO)TOLUENEDIAMINE [DMTDA]	30 to 60%	106264-79-3
DIETHYLTOLUENE DIAMINE [DETDA]	30 to 60%	68479-98-1
ORGANOMERCURY COMPOUND (Below Cut-off)	Less than 1%	Proprietary

All other ingredients not hazardous according to NOHSC Criteria.

4. FIRST AID MEASURES

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

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. Flush skin with water. Seek medical attention if irritation persists after washing.

Inhaled:
Remove victim to fresh air. Apply resuscitation if victim is not breathing. If trained personnel available administer oxygen if breathing is difficult.

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 oxides of carbon, nitrogen and sulphur.

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 extinguishing media suitable for surrounding fire situation. Use foam, water spray (fog), CO2 or dry powder. Use water spray to cool fire-exposed containers and for large fires.

HAZCHEM CODE: None allocated [Aust]

FLAMMABILITY
Combustible liquid - Store in accordance with dangerous goods.

6. ACCIDENTAL RELEASE MEASURES

Material may be slippery when spilt. Walk cautiously. Ventilate area. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. Bund area using sand or soil - to prevent run off into drains and waterways. Use absorbent (soil, sand, vermiculite or other inert material). Collect and seal in properly labelled containers for disposal.

7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. 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:

DI-(METHYLTHIO)TOLUENEDIAMINE [DMTDA]
No exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC)

DIETHYLTOLUENE DIAMINE [DETDA]
No exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC)

ORGANOMERCURY COMPOUND (Below Cut-off)
(Worksafe Australia)
[TWA] 0.1 mg/m³
Notices: Sk

Engineering Controls
Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate unless the material is heated, reacted or otherwise changed in some type of chemical reaction, then the use of a local exhaust ventilation system is recommended. If exhaust ventilation is not available or inadequate, use approved respirator to Australian Standards.

Personal Protection Equipment
CLOTHING: Wear suitable protective clothing to prevent skin contact.
GLOVES: Wear impervious gloves to prevent skin contact - PVC or natural rubber.
EYES: Wear safety glasses with side shields, 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

Appearance:	Light amber, medium viscosity, liquid
Boiling Point Melting Point:	BP > 40°C
Vapour Pressure:	Not determined
Specific Gravity:	1.01
Flash Point:	> 100°C (closed cup)
Flammability Limits:	Not determined
Solubility in Water:	Slightly soluble

Other Properties
None determined.

10. STABILITY AND REACTIVITY

STABILITY:
Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:
Emits toxic fumes including oxides of carbon, nitrogen and sulphur when heated to decomposition.

HAZARDOUS POLYMERIZATION:
Will not occur under normal conditions of use.

INCOMPATIBILITIES:
Strong alkalis, acids, oxidizing agents.

CONDITIONS TO AVOID:
Heat, flames, ignition sources and incompatibles.

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

Inhaled:
Harmful if inhaled.
May cause irritation to the nose, throat and respiratory system with effects including: dizziness, headache and loss of co-ordination.

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.
Product may also be absorbed through the skin with resultant toxic effects.
Prolonged or repeated exposure may lead to irreversible damage to health.
Prolonged or repeated exposure may lead to permanent irreversible injury.
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.

Toxicological Data for Ingredient(s):
DI-(METHYLTHIO)TOLUENEDIAMINE [DMTDA]:
Acute Oral LD50 (rat) = 1515 mg/kg
Acute Dermal LD50 (rabbit) > 2000 mg/kg
Rats given Di-(methylthio)toluenediamine (DMTDA) in the diet for up to 90 days showed increased liver metabolic activity. There were kidney effects observed that were unique to male rats. These effects were similar to changes that have been observed in male rats given hydrocarbons. These effects resolved in animals allowed 30 days recovery. Rats treated for 24 months did not have microscopic alterations in any tissues compared to the control animals. Tumours seen in control and treated animals were usual for age and strain of rats.

DIETHYLTOLUENEDIAMINE [DETDA]:
Diethyltoluenediamine (DETDA) has acute oral (rat) and dermal (rabbit) LD50 values of 485 mg/kg and 700 mg/kg, respectively. A two-year feeding study (rats) showed DETDA caused adverse effects in the pancreas, liver, thyroid, and eyes. An increase in liver and thyroid tumours in male rats, and liver tumours in female rats were observed at a dose level of 70 ppm. An increase in mammary gland tumours in females was observed at a dose level of 35 ppm.

ORGANOMERCURY COMPOUND:
LD50 (oral, rat) = 25-200mg/kg
Primary irritant effect on the skin: caustic effect on skin and mucous membranes.
Primary irritant effect on the eye: strong caustic effect.
Sensitisation: no sensitising effect known.

SEVERE EFFECTS AFTER REPEATED OR PROLONGED EXPOSURE
This substance is capable of causing serious damage to health and is determined to be a hazardous substance. Serious damage is where a clear functional disturbance or morphological change, which has toxicological significance, results from repeated or prolonged exposure by an appropriate route.

12. ECOLOGICAL INFORMATION

Ecotoxity:
There is no information available for this product.

Mobility:
There is no information available for this product.

Persistence / Degradability:
There is no information available for this product.

Chemical Fate Information:
This product is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Avoid release of this product into drains, sewers and waterways.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all relevant Local, State and Federal regulations. Dispose of material through a licensed waste contractor. Any processing, use, or contamination of this product may change the requirements for disposal. It is the responsibility of the generator of the waste to properly classify, transport and dispose of the waste.

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**)

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**)

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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: 9 February 2010
Supersedes: August 2005

Reasons for Update:
Periodic Review

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.

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