1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name: HUNTSMAN HARDENER HV 953 U BD
Synonym(s): 953 U HV HARDENER • HARDENER COMPONENT FOR ARALDITE KIT AW106 • HUNTSMAN ARALDITE HV953U (FORMERLY) • VANTICO HV953U

1.2 Uses and uses advised against

Use(s): ADHESIVE • EPOXY RESIN SYSTEM • HARDENER • TWO COMPONENT EPOXY SYSTEM

1.3 Details of the supplier of the safety data sheet

Supplier name: KLX AEROSPACE SOLUTIONS PTY LIMITED (FORMERLY INTERTURBINE)
Address: 17 Ashtan Pl, Banyo, QLD, Australia, 4014
Telephone: (07) 3292 5200
Fax: (07) 3292 5220
Email: australia@interturbine.com
Website: http://www.interturbine.com

1.4 Emergency telephone number(s)

Emergency: (07) 3292 5200

1.5 Details of alternative supplier(s) of the product

Supplier name: HUNTSMAN ADVANCED MATERIALS (EUROPE) BVBA
Address: 45 Everslaan, Everburg, 3078
Phone: +41 61 299 20 41
Emergency: (Emergency) +41 61 966 40 00
Email: customer_service@huntsman.com
Website: http://www.huntsman.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s): Corrosive to Metals: Category 1
Skin Corrosion/Irritation: Category 1B
Skin Sensitisation: Category 1
Serious Eye Damage / Eye Irritation: Category 1

2.2 Label elements

Signal word: DANGER

Pictograms:

Hazard statement(s):
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Prevention statement(s):
P234 Keep only in original container.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
Product name: HUNTSMAN HARDENER HV 953 U BD

Response statement(s):
- P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P321: Specific treatment is advised - see first aid instructions.
- P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
- P390: Absorb spillage to prevent material damage.

Storage statement(s):
- P405: Store locked up.
- P406: Store in corrosive resistant container with a resistant inner liner.

Disposal statement(s):
- P501: Dispose of contents/container in accordance with relevant regulations.

2.3 Other Hazards
No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-DIMETHYL-DIPROPYLENE-TRIAMINE</td>
<td>10563-29-8</td>
<td>234-148-4</td>
<td>7 - 13%</td>
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<tr>
<td>TRIETHYLENETETRAMINE (TETA)</td>
<td>112-24-3</td>
<td>203-950-6</td>
<td>3 - 7%</td>
</tr>
<tr>
<td>NON HAZARDOUS INGREDIENTS</td>
<td>Not Available</td>
<td>Not Available</td>
<td>remainder</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye: If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation: If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion: For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. First aid facilities: Eye wash facilities and safety shower are recommended.

4.2 Most important symptoms and effects, both acute and delayed
No information provided.

4.3 Immediate medical attention and special treatment needed
Treat symptomatically.
Product name
HUNTSMAN HARDENER HV 953 U BD

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture
Combustible. May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, hydrocarbons) when heated to decomposition.

5.3 Advice for firefighters
Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code
2X

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

6.4 Reference to other sections
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use. Store as a Class C1 Combustible Liquid (AS1940).

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters
Exposure standards
No exposure standards have been entered for this product.

Biological limits
No biological limit values have been entered for this product.
Product name: HUNTSMAN HARDENER HV 953 U BD

8.2 Exposure controls

Engineering Controls: Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

PPE

- **Eye/Face**: Wear splash-proof goggles.
- **Hand**: Wear viton (R) or nitrile gloves.
- **Body**: Wear coveralls.
- **Respiratory**: Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Appearance**: LIGHT YELLOW LIQUID
- **Odour**: SLIGHT ODOUR
- **Odour Threshold**: NOT AVAILABLE
- **Flammability**: CLASS C1 COMBUSTIBLE
- **Flash Point**: 110°C (cc)
- **Boiling Point**: > 200°C
- **Melting Point**: NOT AVAILABLE
- **Evaporation Rate**: NOT AVAILABLE
- **pH**: 12 (50 % solution)
- **Specific Gravity**: 0.95
- **Solubility (water)**: INSOLUBLE
- **Vapour Density**: NOT AVAILABLE
- **Vapour Pressure**: 0.004 kPa @ 20°C
- **Upper Explosion Limit**: NOT AVAILABLE
- **Lower Explosion Limit**: NOT AVAILABLE
- **Partition Coefficient**: NOT AVAILABLE
- **Autoignition Temperature**: NOT AVAILABLE
- **Decomposition Temperature**: > 200°C
- **Viscosity**: NOT AVAILABLE
- **Explosive Properties**: NOT AVAILABLE
- **Oxidising Properties**: NOT AVAILABLE

9.2 Other information

No information provided.
Product name: HUNTSMAN HARDENER HV 953 U BD

10. STABILITY AND REACTIVITY

10.1 Reactivity
May be corrosive to metals.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
Hazardous polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources. Incompatible with metals.

10.6 Hazardous decomposition products
May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Ingestion may result in burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Skin
Causes burns. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns.

Eye
Causes burns. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.

Mutagenicity
Not classified as a mutagen.

Carcinogenicity
Not classified as a carcinogen.

Reproductive
Not classified as a reproductive toxin.

STOT - single exposure
Over exposure may result in irritation of the nose and throat, with coughing. High level exposure may result in breathing difficulties, ulceration, pulmonary oedema and unconsciousness.

STOT - repeated exposure
Not classified as causing organ damage from repeated exposure. Adverse effects are generally associated with single exposure.

Aspiration
Not classified as causing aspiration.

Sensitisation
May cause an allergic skin reaction. This product is not classified as a respiratory sensitiser.
HUNTSMAN HARDENER HV 953 U BD

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No information provided.

12.2 Persistence and degradability
No information provided.

12.3 Bioaccumulative potential
No information provided.

12.4 Mobility in soil
No information provided.

12.5 Results of PBT and vPvB assessment
No information provided.

12.6 Other adverse effects
No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste disposal
Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as environmental damage may result.

Legislation
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<table>
<thead>
<tr>
<th>Land Transport (ADG)</th>
<th>Sea Transport (IMDG/IMO)</th>
<th>Air Transport (IATA/ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>2735</td>
<td>2735</td>
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<tr>
<td>14.2 UN proper shipping name</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.</td>
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<tr>
<td>14.3 Transport hazard classes</td>
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<tr>
<td>DG Class</td>
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<tr>
<td>Subsidiary risk(s)</td>
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<td>-</td>
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<tr>
<td>14.4 Packing group</td>
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<td>III</td>
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<tr>
<td>14.5 Environmental hazards</td>
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<tr>
<td>14.6 Special precautions for user</td>
<td>2X</td>
<td>F-A, S-B</td>
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<td>EMS</td>
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</tbody>
</table>

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Poison schedule
Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Huntsman Hardener HV 953 U BD

Classifications
- C - Corrosive
- Xi - Irritant

Risk phrases
- R34: Causes burns.
- R41: Risk of serious damage to eyes.
- 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.
- S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

Inventory listing(s)
AUSTRALIA: AICS (Australian Inventory of Chemical Substances)
All components are listed on AICS, or are exempt.

15.2 Chemical safety assessment
No information provided.

16. OTHER INFORMATION

Additional information
This product is used in conjunction with Araldite AW 106. Please refer to the appropriate SDS before use.

WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Abbreviations
- ACGIH: American Conference of Governmental Industrial Hygienists
- CAS #: Chemical Abstract Service number - used to uniquely identify chemical compounds
- CNS: Central Nervous System
- EC No.: EC No - European Community Number
- EMS: Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
- GHS: Globally Harmonized System
- GTEPG: Group Text Emergency Procedure Guide
- IARC: International Agency for Research on Cancer
- LC50: Lethal Concentration, 50% / Median Lethal Concentration
- LD50: Lethal Dose, 50% / Median Lethal Dose
Product name

HUNTSMAN HARDENER HV 953 U BD

mg/m³ Milligrams per Cubic Metre
OEL Occupational Exposure Limit
pH relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm Parts Per Million
STEL Short-Term Exposure Limit
STOT-RE Specific target organ toxicity (repeated exposure)
STOT-SE Specific target organ toxicity (single exposure)
SUSMP Standard for the Uniform Scheduling of Medicines and Poisons
SWA Safe Work Australia
TLV Threshold Limit Value
TWA Time Weighted Average

Report Status

This ChemAlert report has been independently compiled by RMT’s scientific department utilising the original Safety Data Sheet ("SDS") for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer’s original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

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End of Report