

Become a

member!

ARALDITE® AW 8594 US

Section 1. Identification

GHS product identifier : ARALDITE® AW 8594 US

Product code : 00066430

Other means of identification : Not available.

Product type : Liquid.

Material uses : Adhesive Hardener

Supplier's details : Huntsman Advanced Materials Americas LLC

P.O. Box 4980

The Woodlands, TX 77387

Non-Emergency phone: (800) 257-5547

e-mail address of person responsible for this SDS

: MSDS@huntsman.com

Emergency telephone number (24h/7day)

: Chemtrec: (800) 424-9300 or (703) 527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200).

Classification of the substance or mixture

: SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1

AQUATIC HAZARD (LONG-TERM) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 4.4% Percentage of the mixture consisting of ingredient(s) of unknown hazards to the

aquatic environment: 4.4%

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Section 2. Hazards identification

Precautionary statements

: Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Collect spillage. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not : None known. result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Bisphenol A epoxy resin	60 - 100	25068-38-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed Potential acute health effects

Section 4. First aid measures

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion: Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation

watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : No specific treatment. Treat symptomatically. Call medical doctor or poison control

center immediately if large quantities have been ingested.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It

may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear

gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flash point : Open cup: >148.89°C (>300°F)

Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being

discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon dioxide
Carbon monoxide

halogenated compounds

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Storage temperature: 2 to 40°C (35.6 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Appropriate engineering controls

Environmental exposure controls

- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

www.freemansupply.com 800-321-8511 FREE

Thermal hazards : Not available.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Paste.]

Color : White.
Odor : mild

Odor threshold : Not available.

pH : Not available.

Melting point/Freezing point : Not available.

Boiling/condensation point : Not available.

6/11/2014. 00066430 5/14
Distributed By
Freeman Manufacturing & Supply Co.

Section 9. Physical and chemical properties

Flash point : Open cup: >148.89°C (>300°F)

Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive : Not available.

(flammable) limits

Vapor pressure: Not available.Vapor density: Not available.Relative density: Not available.Solubility in water: negligiblePartition coefficient: n-: Not available.

octanol/water

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Density : 1.37 to 1.45 g/cm³

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials: No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Endpoint	Species	Result
Bisphenol A epoxy resin	- OECD 402 Acute Dermal Toxicity OECD 420 Acute Oral Toxicity - Fixed Dose Method	LC0 Inhalation Vapor LD50 Dermal LD50 Oral	Rat - Male Rat - Male, Female Rat - Female	0.00001 ppm >2000 mg/kg >2000 mg/kg

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Test	Species	Result
Bisphenol A epoxy resin	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Mild irritant
	OECD 405 Acute Eye Irritation/ Corrosion	Rabbit	Eyes - Mild irritant

Conclusion/Summary

Skin : Bisphenol A epoxy resin Irritating to skin.Eyes : Bisphenol A epoxy resin Irritating to eyes.

Respiratory: Bisphenol A epoxy resin No additional information.

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result
Bisphenol A epoxy resin	OECD 429 Skin Sensitization: Local Lymph Node Assay	skin	Mouse	Sensitizing

Mutagenicity

Product/ingredient name	Test	Result
Bisphenol A epoxy resin	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Positive
	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Positive
	Metabolic activation: +/- Experiment: In vivo Subject: Mammalian-Animal Cell: Germ	Negative
	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative

Carcinogenicity

Product/ingredient name	Test	Species	Dose	Exposure	Result/Result type
Bisphenol A epoxy resin	OECD 453 Combined Chronic Toxicity/ Carcinogenicity Studies	Rat - Male, Female	15 mg/kg	2 years; 7 days per week	Negative - Oral - NOAEL
	OECD 453 Combined Chronic Toxicity/ Carcinogenicity Studies	Rat - Female	1 mg/kg	2 years; 5 days per week	Negative - Dermal - NOEL
	OECD 453 Combined Chronic	Mouse - Male	0.1 mg/kg	2 years; 3 days per week	Negative - Dermal - NOEL

6/11/2014. 00066430



Section 11. Toxicological information

Studies

Reproductive toxicity

Product/ingredient name	Test	Species	Maternal toxicity	Fertility	Developmental effects
Bisphenol A epoxy resin	OECD 416 Two- Generation Reproduction Toxicity Study	Rat - Male, Female	Negative	Negative	Negative

Teratogenicity

Product/ingredient name	Test	Species	Result/Result type
Bisphenol A epoxy resin	Developmental Toxicity Study EPA CFR OECD 414 Prenatal	Rat - Female Rabbit - Female Rabbit - Female	Negative - Oral Negative - Dermal Negative - Oral
	Developmental Toxicity Study		

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely: Not available.

routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

pain or irritation watering

redness

Inhalation : No specific data.

Skin contact Adverse symptoms may include the following:

> irritation redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Section 11. Toxicological information

Short term exposure

Potential

: Not available.

immediate effects

Potential delayed

: Not available.

Long term exposure

Potential

effects

immediate effects

: Not available.

Potential delayed

effects

: Not available.

Potential chronic health effects

Product/ingredient name	Test	Endpoint	Species	Result
Bisphenol A epoxy resin	OECD 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Sub-chronic NOAEL Oral	Rat - Male, Female	50 mg/kg
	OECD 411 Subchronic Dermal Toxicity: 90-day Study	Sub-chronic NOEL Dermal	Rat - Male, Female	10 mg/kg
	OECD 411 Subchronic Dermal Toxicity: 90-day Study	Sub-chronic NOAEL Dermal	Mouse - Male	100 mg/kg

General Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

Carcinogenicity : No known significant effects or critical hazards. **Mutagenicity** : No known significant effects or critical hazards. **Teratogenicity** No known significant effects or critical hazards. **Developmental** No known significant effects or critical hazards.

effects

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : Not available.

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Test	Endpoint		Exposure	Species	Result	
Bisphenol A epoxy resin	EPA CFR	Acute	EC50	72 hours Static	Algae	9.4	mg/l
	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	Acute	EC50	48 hours Static	Daphnia	1.7	mg/l
	Unknown guidelines	Acute	IC50	3 hours Static	Bacteria	>100	mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute	LC50	96 hours Static	Fish	1.5	mg/l
	OECD 211 <i>Daphnia Magna</i> Reproduction Test	Chronic	NOEC	21 days Semi-static	Daphnia	0.3	mg/l

Persistence and degradability

Product/ingredient name	Test	Period	Result
Bisphenol A epoxy resin	OECD Derived from OECD 301F (Biodegradation Test)	28 days	5 %

Conclusion/Summary: Bisphenol A epoxy resin Not readily biodegradable.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
Bisphenol A epoxy resin	Fresh water 4.83 days Fresh water 3.58 days Fresh water 7.1 days	-	Not readily	

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential	
Bisphenol A epoxy resin	3.242	31	low	

Mobility in soil

Not available.

Other adverse effects: No known significant effects or critical hazards.

Other ecological information

BOD5 : Not determined.

COD : Not determined.

TOC : Not determined.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled

10/14
Distributed By
Freeman Manufacturing & Supply Co.
www.freemansupply.com 800-321-8511 FREEMAN

Section 13. Disposal considerations

material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (Bisphenol a epoxy resin). Marine pollutant
 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol a epoxy resin). Marine pollutant
 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol a epoxy resin). Marine pollutant
 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol a epoxy resin)

Regulatory information	UN number	Classes	PG*	Label	Additional information
DOT Classification	UN3082	9	III	***************************************	Marine pollutants are only regulated for bulk and vessel shipments, per 49CFR171.4 (c) Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car or aircraft.
TDG Classification	UN3082	9	III	NAME FOLLUTAY	-
IMDG Classification	UN3082	9	III	¥22	Emergency schedules (EmS) F-A S-F

6/11/2014. 00066430

Section 14. Transport information

IATA Classification	UN3082	9	III	1 2	Passenger and Cargo Aircraft Quantity limitation: 450 L Packaging instructions: 964 Cargo Aircraft Only Quantity limitation: 450 L Packaging instructions: 964
---------------------	--------	---	-----	------------	--

PG*: Packing group

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

United States Regulations

TSCA 8(b) inventory : All components are listed or exempted.

TSCA 5(a)2 final significant new use rule

(SNUR)

: No ingredients listed.

TSCA 5(e) substance

consent order

: No ingredients listed.

TSCA 12(b) export

notification

: No ingredients listed.

SARA 311/312 : Immediate (acute) health hazard

Clean Air Act - Ozone **Depleting Substances**

(ODS)

: This product does not contain nor is it manufactured with ozone depleting substances.

Product name Concentration %

21

SARA 313 : barium-zinc-sulfate-sulfide-21

Form R - Reporting

requirements

Section 304 **CERCLA Product** CERCLA Reportable **Reportable Ingredient name** Quantity Quantity **Hazardous Substance** (Lbs) (Lbs)

CERCLA Hazardous

substances

barium-zinc-sulfate-

sulfide-

Listed

No RQ assigned

State regulations

PENNSYLVANIA - RTK : barium-zinc-sulfate-sulfide-

> Distributed By Freeman Manufacturing & Supply Co. www.freemansupply.com 800-321-8511 FREE

Section 15. Regulatory information

California Prop 65 : This pr

: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Canadian regulations

CEPA DSL : At least one component is not listed.

WHMIS Classes : Class D-2B: Material causing other toxic effects (Toxic).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Brazil Regulations

Classification system

used

: Norma ABNT-NBR 14725-2:2012

International lists
: Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: Not determined.

Korea inventory: All components are listed or exempted. **Malaysia Inventory (EHS Register)**: Not determined.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or

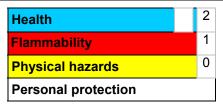
exempted.

Philippines inventory (PICCS): At least one component is not listed.

Taiwan inventory (CSNN): Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

6/11/2014. 00066430

Section 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of printing : **6/11/2014**. **Date of issue** : 6/11/2014.

Date of previous issue : No previous validation.

Version : 1

Indicates information that has changed from previously issued version.

ARALDITE® is a registered trademark of Huntsman Corporation or an affiliate thereof in one or more countries, but not all countries.

Notice to reader

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

SECTION 1. IDENTIFICATION

Product name : HARDENER HY 994 US

Manufacturer or supplier's details

Company name of supplier

: Huntsman Advanced Materials Americas LLC

Address

: P.O. Box 4980 The Woodlands.

TX 77387

United States of America

Telephone : Non-Emergency: (800) 257-5547

E-mail address of person responsible for the SDS

: MSDS@huntsman.com

Emergency telephone : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use

: Hardener Recommended use

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Skin corrosion : Category 1B

Serious eye damage : Category 1

Chronic aquatic toxicity : Category 2

GHS Label element

Hazard pictograms







Signal Word : Danger

Hazard Statements : H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	60 - 100
3-aminopropyldimethylamine	109-55-7	13 - 30
1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-	112-24-3	3 - 7

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air in case of accidental inhalation of dust or

fumes from overheating or combustion. If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and

delayed

: None known.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: No data is available on the product itself.

Specific extinguishing

methods

: No data is available on the product itself.

Further information : Standard procedure for chemical fires.

Special protective equipment

for fire-fighters

: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

Personal precautions, protective equipment and emergency procedures : Not applicable for product as supplied.

Environmental precautions : No special environmental precautions required.

Methods and materials for containment and cleaning up

: Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.

No special handling advice required.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Materials to avoid : No special restrictions on storage with other products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1,2-Ethanediamine, N1,N2- bis(2-aminoethyl)-	112-24-3	TWA	1 ppm	US WEEL

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally

required.

Hand protection

Material : butyl-rubber Break through time : > 8 h

Solvent-resistant gloves (butyl-rubber)

Nitrile rubber 10 - 480 min

Remarks : For prolonged or repeated contact use protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : General industrial hygiene practice.



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : amber

Odor ammoniacal

Odor Threshold No data is available on the product itself.

рΗ No data is available on the product itself.

42.22 °C Flash point

Method: closed cup

Evaporation rate : No data is available on the product itself.

Flammability (solid, gas) : No data is available on the product itself.

Upper explosion limit : No data is available on the product itself.

Lower explosion limit : No data is available on the product itself.

Vapor pressure 43.989 hPa (66.11 °C)

Relative vapor density : No data is available on the product itself.

: 0.93 Relative density

0.92

Density No data is available on the product itself.

Solubility(ies)

Water solubility : No data is available on the product itself.

Solubility in other solvents : No data is available on the product itself.

Partition coefficient: n-

Autoignition temperature

octanol/water

: No data is available on the product itself.

: No data is available on the product itself.

Thermal decomposition : No data is available on the product itself.

Viscosity No data is available on the product itself.

Self-Accelerating

(SADT)

decomposition temperature

: No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

400001011978 1.0 07/10/2015 Date of first issue: 07/10/2015

Reactivity : Stable under recommended storage conditions. Chemical stability No decomposition if stored and applied as directed.

No hazards to be specially mentioned. Possibility of hazardous

reactions

Conditions to avoid : No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : No data is available on the product itself.

exposure

Acute toxicity

Acute oral toxicity - Product : Acute toxicity estimate : 2,293 mg/kg

Method: Calculation method

Ingredients:

3-aminopropyldimethylamine:

Acute inhalation toxicity : LC50 (Rat, male and female): 24.8 mg/l

> Exposure time: 2 h Test atmosphere: vapor

Method: OECD Test Guideline 403

Acute dermal toxicity -: Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method Product

Acute toxicity (other routes of : No data available

administration)

Skin corrosion/irritation

Product:

Remarks: According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Serious eye damage/eye irritation

Product:

Remarks: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Respiratory or skin sensitization

Product:

Routes of exposure: Skin Species: Guinea pig

Result: Does not cause skin sensitization.

Remarks: No data available

No data available Assessment:



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

Germ cell mutagenicity

Ingredients:

3-aminopropyldimethylamine:

Genotoxicity in vitro : Concentration: 0 - 300 µg/L

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Concentration: 0 - 10000 ug/plate

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Concentration: 0 - 715.4 µg/L

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Genotoxicity in vitro : Concentration: 0 - 200 µg/L

Metabolic activation: negative Method: OECD Test Guideline 482

Result: negative

Ingredients:

3-aminopropyldimethylamine:

Genotoxicity in vivo : Application Route: Intraperitoneal injection

Dose: 0 - 100 mg/kg

Method: OECD Test Guideline 474

Result: negative

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Genotoxicity in vivo : Application Route: Intraperitoneal injection

Dose: 0 - 600 mg/kg

Method: OECD Test Guideline 474

Result: negative

Carcinogenicity

Ingredients:

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Species: Mouse, (male) Application Route: Dermal

Dose: 42 mg/kg

Frequency of Treatment: 3 days/week Method: OECD Test Guideline 451

Result: negative

Species: Mouse, (male) Application Route: Dermal Exposure time: 104 weeks

Dose: 16.8 mg/kg

Frequency of Treatment: 3 days/week



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

400001011978 1.0 07/10/2015 Date of first issue: 07/10/2015

Method: OECD Test Guideline 451

Carcinogenicity -: No data available

Assessment

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

ACGIH No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by ACGIH.

OSHA No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Reproductive toxicity

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Effects on fertility : Species: Rat, male and female

Application Route: Other

Ingredients:

3-aminopropyldimethylamine:

Effects on fetal development : Species: Rat, male and female

Application Route: Oral

General Toxicity Maternal: NOAEL (No observed adverse

effect level): 200 mg/kg body weight Method: OECD Test Guideline 421

Result: No effects on fertility and early embryonic

development were detected.

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL (No observed adverse

effect level): > 750 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects.

Species: Rabbit

Application Route: Dermal

General Toxicity Maternal: NOAEL (No observed adverse

effect level): 125 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects.

Reproductive toxicity -

Assessment

: No data available





HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

400001011978 1.0 07/10/2015 Date of first issue: 07/10/2015

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Repeated dose toxicity

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Species: Rat, male and female

NOAEL (No observed adverse effect level): 1000 mg/kg

Application Route: Ingestion Exposure time: 6 Weeks Number of exposures: 7 d Method: Subchronic toxicity

3-aminopropyldimethylamine: Species: Rat, male and female

NOAEL (No observed adverse effect level): 50 mg/kg/d

Application Route: Ingestion Exposure time: davs 28 d

Number of exposures: 7 days/week

Method: Subacute toxicity

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Species: Rat, male and female

NOAEL (No observed adverse effect level): 50 mg/kg/d

Application Route: Ingestion Exposure time: 26 Weeks Number of exposures: 7 d Method: Subchronic toxicity

Repeated dose toxicity -

: No data available

Assessment

Aspiration toxicity

No data available

Experience with human exposure

No data available General Information:

Inhalation: No data available

Skin contact: No data available

No data available Eye contact:



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

400001011978 1.0 07/10/2015 Date of first issue: 07/10/2015

No data available Ingestion:

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Toxicity to fish : LC50: 7.07 mg/l

Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 203

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 330 mg/l

> Exposure time: 96 h Test Type: static test

Test substance: Fresh water Method: Fish Acute Toxicity Test

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 5.18 mg/l aquatic invertebrates Exposure time: 1,152 h

Test Type: static test

Test substance: Fresh water Method: OECD Test Guideline 202

3-aminopropyldimethylamine:

: EC50 (Daphnia magna (Water flea)): 59.5 mg/l Toxicity to daphnia and other

aquatic invertebrates Exposure time: 48 h Test Type: static test

Test substance: Fresh water

Method: Directive 67/548/EEC, Annex V, C.2.

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 31.1 mg/l



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

aquatic invertebrates Exposure time: 48 h

Test Type: static test

Test substance: Fresh water

Method: Directive 67/548/EEC, Annex V, C.2.

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 4.11 mg/l

Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201

3-aminopropyldimethylamine:

Toxicity to algae : EbC50 (Desmodesmus subspicatus (Scenedesmus

subspicatus)): 53.5 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 20 mg/l

Exposure time: 72 h
Test Type: semi-static test
Test substance: Fresh water
Method: OECD Test Guideline 201

M-Factor (Acute aquatic

toxicity)

: No data available

Toxicity to fish (Chronic

toxicity)

: No data available

Ingredients:

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Toxicity to daphnia and other : EC10 (Daphnia magna (Water flea)): 1.9 mg/l

aquatic invertebrates Exposure time: 21 d
(Chronic toxicity) Test Type: semi-static test
Test substance: Fresh water

Method: OECD Test Guideline 202

M-Factor (Chronic aquatic

toxicity)

: No data available

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Toxicity to bacteria : EC0: > 100 mg/l

Method: DIN 38412

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Toxicity to bacteria : EC50 (activated sludge): 800 mg/l

Exposure time: 0.5 h
Test Type: static test
Test substance: Fresh water



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

07/10/2015 400001011978 1.0 Date of first issue: 07/10/2015

Toxicity to soil dwelling

organisms

: No data available

Plant toxicity : No data available

Sediment toxicity : No data available

Toxicity to terrestrial

organisms

: No data available

Ecotoxicology Assessment

Acute aquatic toxicity : No data available

: No data available Chronic aquatic toxicity

Toxicity Data on Soil : No data available

Other organisms relevant to

the environment

: No data available

Further information: No data available

Persistence and degradability

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Biodegradability : Inoculum: activated sludge

Concentration: 9 mg/l

Result: Inherently biodegradable.

Biodegradation: 100 % Exposure time: 74 d

Method: OECD Test Guideline 301B

3-aminopropyldimethylamine:

Biodegradability : Inoculum: activated sludge

Result: Readily biodegradable.

Biodegradation: 65 % Exposure time: 20 d

Method: OECD Test Guideline 301D

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Biodegradability Inoculum: activated sludge

Result: Not readily biodegradable.

Biodegradation: 0 % Exposure time: 162 d

Method: OECD Test Guideline 301D

Inoculum: activated sludge Result: Not readily biodegradable.

Biodegradation: 20 % Exposure time: 84 d

Method: Inherent Biodegradability: Modified SCAS Test

Biochemical Oxygen : No data available



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

Demand (BOD)

Chemical Oxygen Demand

(COD)

: No data available

BOD/COD : No data available

ThOD : No data available

BOD/ThOD : No data available

Dissolved organic carbon

(DOC)

: No data available

Physico-chemical

removability

: No data available

Stability in water : No data available

Ingredients:

3-aminopropyldimethylamine:

Photodegradation : Test Type: Air

Rate constant: < .00001

Degradation (direct photolysis): 50 %

Impact on Sewage

Treatment

: No data available

Bioaccumulative potential

Ingredients:

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines:

Bioaccumulation : Bioconcentration factor (BCF): 1.85 - 2.69

Test substance: Fresh water

Ingredients:

3-aminopropyldimethylamine:

Partition coefficient: n-

: log Pow: -0.352 (25 °C)

octanol/water

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:

Partition coefficient: n- : log Pow: -2.65 (20 °C)

octanol/water Method: OECD Test Guideline 117

Mobility in soil

Mobility : No data available

Ingredients:

3-aminopropyldimethylamine:

Distribution among : Koc: 73.35.

environmental compartments

1,2-Ethanediamine, N1,N2-bis(2-aminoethyl)-:



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

Distribution among

environmental compartments

Stability in soil

: No data available

Other adverse effects

Environmental fate and

pathways

: No data available

Results of PBT and vPvB

assessment

: No data available

Endocrine disrupting

potential

: No data available

Adsorbed organic bound

halogens (AOX)

: No data available

Hazardous to the ozone layer

Ozone-Depletion Potential

Not applicable

Additional ecological information - Product

Global warming potential

(GWP)

: There is no data available for this product.

: Koc: 1584.9 - 5012. Method: OECD Test Guideline 106

: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Offer surplus and non-recyclable solutions to a licensed

disposal company.

Contaminated packaging Empty remaining contents.

Empty containers should be taken to an approved waste

handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA

UN/ID No. : UN 2734

Amines, liquid, corrosive, flammable, n.o.s. Proper shipping name

(3-AMINOPROPYLDIMETHYLAMINE)

Class 8 Subsidiary risk : 3 Ш Packing group

Labels Corrosive, Flammable Liquids



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

: 855

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

Packing instruction (cargo

aircraft)

Packing instruction : 851

(passenger aircraft)

IMDG

UN number : UN 2734

Proper shipping name : AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.

(3-AMINOPROPYLDIMETHYLAMINE)

: 8 Class Subsidiary risk : 3 : 11 Packing group 8 (3) Labels EmS Code F-E, S-C Marine pollutant yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

DOT Classification

UN/ID/NA number : UN 2734

Proper shipping name : AMINES, LIQUID, CORROSIVE, FLAMMABLE N.O.S.

(3-AMINOPROPYLDIMETHYLAMINE)

Class 8 : 3 Subsidiary risk : 11 Packing group

Labels CORROSIVE, FLAMMABLE LIQUID

ERG Code 132

Marine pollutant yes(DIMER FATTY ACID (C18) POLY AMIDO AMINE RESIN)

SECTION 15. REGULATORY INFORMATION

TSCA - 5(a) Significant New : Not relevant

Use Rule List of Chemicals

California Prop 65 This product does not contain any chemicals known to the

State of California to cause cancer, birth, or any other

reproductive defects.

The ingredients of this product are reported in the following inventories:

CH INV The mixture contains substances listed on the Swiss Inventory

TSCA On TSCA Inventory

DSL All components of this product are on the Canadian DSL. **AICS** On the inventory, or in compliance with the inventory

NZIoC Not in compliance with the inventory

On the inventory, or in compliance with the inventory **ENCS** On the inventory, or in compliance with the inventory ISHL KECI On the inventory, or in compliance with the inventory **PICCS** : On the inventory, or in compliance with the inventory



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

Instability

400001011978 1.0 07/10/2015 Date of first issue: 07/10/2015

IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA: Flammability

Health



3

HMIS III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Revision Date : 07/10/2015

0

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE. THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL



HARDENER HY 994 US

Version Revision Date: SDS Number: Date of last issue: -

1.0 07/10/2015 400001011978 Date of first issue: 07/10/2015

REQUESTS FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE **ABOVE ADDRESS.**