

SAFETY DATA SHEET

ALBAFIX® ECO

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name : ALBAFIX® ECO

Use of the substance/mixture : Textile chemical

Supplier : Huntsman Textile Effects,
Klybeckstrasse 200, CH 4057 Basel,
Telephone: +41 61 299 11 11

Distributor : Huntsman Advanced Materials (Singapore) Pte Ltd
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China: +86 20 39377888
India: + 91 22 40 506 333
USA & Canada: 800 424 9300

e-mail address of person responsible for this SDS : pehs_te@huntsman.com

Section 2. Hazards identification

Classification of the substance or mixture : LONG-TERM AQUATIC HAZARD - Category 2

GHS label elements

Signal word : No signal word.

Hazard statements : H411 - Toxic to aquatic life with long lasting effects.


Precautionary statements

Prevention : P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Symbol : 

Hazardous ingredients : Not applicable.

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

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Cyanoguanidine polymer with N-(2-Aminoethyl)-1,2-ethanediamine	30 - 60	50862-68-5

Version : 3

Date of issue/Date of revision : 8/30/2013.

Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First-aid measures

Description of necessary first aid measures

- 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.
- 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.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- 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 if irritation occurs.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Ingestion** : No specific data.
- Skin** : No specific data.
- Eyes** : No specific data.

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

- Specific treatments** : Not available.
- Notes to physician** : No specific treatment. Treat symptomatically. Call medical doctor or poison control centre 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : 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

Special precautions 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.

Remark : Not available.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures : 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions Avoid dispersal of spilt 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Stop leak if without risk. Move containers from spill area. Approach the 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling : 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.

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour 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.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
None.	

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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.

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.
Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Additional information can be found for instance at www.gisbau.de.

Eye 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: safety glasses with side-shields.

Skin 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.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid. [liquid]		
Colour	: Yellow.		
Odour	: Characteristic.		
Odour threshold	: Not available.		
pH	: 7.2 to 7.8 [Conc. (% w/w): 5%]		
Melting point	: Not available.		
Boiling point	: 100°C (212°F)		
Flash point	: Closed cup: >100°C (>212°F)		
Evaporation rate (butyl acetate = 1)	: Not available.		
Flammability (solid, gas)	: Not available.		
Lower and upper explosive (flammable) limits	: Not available.		
Vapour pressure	: Not available.		
Vapour density	: Not available.		
Relative density	: Not available.		
Solubility	: Miscible in water.		
Water solubility	: miscible		
Partition coefficient: n-octanol/water	: Not available.		
Auto-ignition temperature	: Not available.		
Viscosity	: Dynamic (room temperature): 10 mPa·s (10 cP)	25	deg C
Explosive properties	: Not available.		
Oxidising properties	: Not available.		

Other information

Density : 1.16 to 1.18 g/cm³ [20°C (68°F)]

No additional information.

Section 10. Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
	None
Conditions to avoid	: No specific data.
Incompatible materials	: None under normal storage conditions.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on the likely routes of exposure

Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Eye contact	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Version	: 3	Date of issue/Date of revision	: 8/30/2013.
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Section 11. Toxicological information

Inhalation : No specific data.

Ingestion : No specific data.

Skin contact : No specific data.

Eye contact : No specific data.

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

Acute toxicity

Product/ingredient name	Endpoint	Species	Result	Exposure
Cyanoguanidine polymer with N-(2-Aminoethyl)-1, 2-ethanediamine	LD50 Oral	Rat	1850 mg/kg	-
ALBAFIX ECO	LD50 Oral	Rat	>2000 mg/kg	-

Irritation/Corrosion

Conclusion/Summary

Sensitisation

Product/ingredient name	Test	Route of exposure	Species	Result
ALBAFIX ECO	OECD 406 Skin Sensitization	skin	Guinea pig	Not sensitizing

Potential chronic health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : No known significant effects or critical hazards.

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 effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Environmental effects : Not readily biodegradable. Water polluting material. May be harmful to the environment if released in large quantities. This material is toxic to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

Product/ingredient name	Test	Endpoint	Exposure	Species	Result
Cyanoguanidine polymer with N-(2-Aminoethyl)-1, 2-ethanediamine	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	EC50	48 hours	Daphnia	1 to 10 mg/l
	-	IC50	3 hours	Bacteria	>100 mg/l
	-	LC50	96 hours	Fish	1 to 10 mg/l
ALBAFIX ECO	OECD 201 Alga, Growth Inhibition Test	EC50	72 hours	Algae	1.1 mg/l
	OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test	EC50	48 hours	Daphnia	4 mg/l
	-	IC50	3 hours	Bacteria	>100 mg/l
	-	LC0	96 hours	Fish	1 mg/l
	-	LC50	96 hours	Fish	5 mg/l

Biodegradability

Product/ingredient name	Test	Period	Result
ALBAFIX ECO	OECD 303A Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units	28 days	<10 %

Conclusion/Summary : Poorly eliminated by adsorption on effluent treatment sludge.

Section 12. Ecological information

<u>Product/ingredient name</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>
ALBAFIX ECO	-	-	Not readily

Bioaccumulative potential

<u>Product/ingredient name</u>	<u>LogP_{ow}</u>	<u>BCF</u>	<u>Potential</u>
Cyanoguanidine polymer with N-(2-Aminoethyl)-1,2-ethanediamine	<1	-	low

Mobility	: Not available.
Other adverse effects	: No known significant effects or critical hazards.
BOD5	: 122 mgO2/g
COD	: 601 mgO2/g
TOC	: 13.6 %
Organohalogen content	: 0 %
Phosphorus Content	: 0 %
Nitrogen Content	: 10 %
Metal Content	: Metal content under the ETAD recommended limits.

Section 13. Disposal considerations

Disposal methods	: The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.
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Section 14. Transport information

International transport regulations

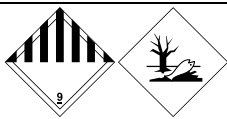
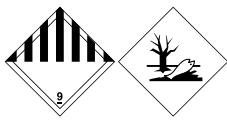
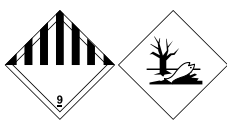
	14.1 UN number	14.2 UN proper shipping name
ADR/RID	UN3082	Environmentally hazardous substance, liquid, n.o.s. (POLYETHYLENE/POLYAMINE DERIVATIVE)
IMDG	UN3082	Environmentally hazardous substance, liquid, n.o.s. (POLYETHYLENE/POLYAMINE DERIVATIVE). Marine pollutant (Cyanoguanidine polymer with N-(2-Aminoethyl)-1,2-ethanediamine)
IATA	UN3082	Environmentally hazardous substance, liquid, n.o.s. (POLYETHYLENE/POLYAMINE DERIVATIVE)

	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards	14.6 Special precautions for user	Additional information
ADR/RID	9	III	Yes.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the	Hazard identification number 90 Special provisions 274, 335, 601

Version : 3

Date of issue/Date of revision : 8/30/2013.

Section 14. Transport information

				product know what to do in the event of an accident or spillage.	Tunnel code E
IMDG	9 	III	Yes.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Emergency schedules (EmS) F-A, S-F
IATA	9 	III	Yes.	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	Passenger and Cargo Aircraft Quantity limitation: 450 L Packaging instructions: 964 Cargo Aircraft Only Quantity limitation: 450 L Packaging instructions: 964

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

Section 15. Regulatory information

Hazard symbol or symbols :



Signal word : No signal word.
Hazard statements : Toxic to aquatic life with long lasting effects.
Precautionary statements
Prevention : Avoid release to the environment.
Response : Collect spillage.
Storage : Not applicable.

Section 15. Regulatory information

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Additional information: EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols :



Dangerous for the environment

Risk phrases : R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S61- Avoid release to the environment. Refer to special instructions/safety data sheet.