NORDIA S.A. **SAFETY DATA SHEET** ASTARTE

1st EDITION
DATE OF APPROVAL: 10/3/2013

ASTARTE EPOXY ARMOS A+B

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Name of Mixture : **ASTARTE EPOXY ARMOS (B Component)**
Use of Mixture : Solvent Free 2 Component Epoxy Grout
Curing agent
Contains Polyamine and Isophoronodiamine

Company : NORDIA S.A.
364, Kifissias Av., 15233 Halandri, Greece

Company telephone : +30 2295022225
Emergency telephone number +30 6932605482

2. HAZARDS IDENTIFICATION

Classification of the mixture
Classification according to 1272/2008(CLP)
Other hazards: Skin corrosion 1B: H 314, Acute toxicity 4:H302, Skin sensitization 1:H317, Aquatic chronic 3:H412

Label elements
Hazard:

Dangerous

Signal word:

Hazard statement(s):
H314: Causes severe skin burns and eye damage
H302: Harmful if swallowed
H317: May cause an allergic skin reaction
H412: Harmful to aquatic life with long lasting effects

Precautionary statement(s):
P280,Wear protective gloves/protective clothing/eye protection/face protection.
P273, Avoid release to the environment
P302+352, IF ON SKIN: Gently wash with plenty of soap and water.
P305+P351+P338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313, If skin irritation or rash occurs: Get medical advice/ attention.

Classification according to 67/548/EEC (DSD)

Danger:

Corrosive

Risk phrases:

R34:Causes burns.
R43:May cause sensitization by skin contact
R21/22:Harmful in contact with skin and if swallowed.
R 52/53- Harmful to aquatic organism
May cause long-term adverse effects in the aquatic environment

3. COMPOSITION / INFORMATION ON INGREDIENTS

Composition: Preparation / mixture of amines and benzyl alcohol.

Chemical name	EC-No	REACH-No	Index-No	CAS-No	Amount (%)	Classification according Regulation (EC) No 1272/2008 [CLP]		Classification according 67/548/EEC
						Hazard class & category	Hazard statement	
Fatty acids, tall-oil, with tetraethylenepentamine				68953-36-6	30-40			
Benzyl alcohol	**202-859-9**		603-057-00-5	100-51-6	10-20	Acute Tox. 4 Acute Tox. 4	H332 H302	Xn, R20/22
3-aminomethyl-3,5,5-trimethylcyclohexyl amine	**220-666-8**		612-067-00-9	2855-13-2	10-20	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	H312 H302 H314 H317 H412	C R21/22 R34 R43 R52/53
Bisphenol A polymer with 5-amino-1,3,3-trimethylcyclohexan emethanamine and				38294-64-3	10-20			C, R21/22 R34 R43 N, R51/53
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine	**203-986-2**		612-060-00-0	112-57-2	1-10	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 2	H312 H302 H314 H317 H411	Xn, R21/22 C, R34 R43 N, R51-53
Other ingredients					1-10	Not classified		

Full text of R- and H-phrases: see section 16.

4. FIRST AID MEASURES

General Instructions : If exist doubts or if the symptoms insist, seek for medical advice.

Inhalation : Move the victim in open space with clean air. Do not give anything from the mouth. If the person has lost his senses, place him with caution and ask for medical advice.

Skin Contact : Wash the skin thoroughly with soap and water or use suitable detergent. Do not use solvents or thinners.

Eye Contact : Remove the contact lenses. Wash immediately the eyes with water for 15 minutes holding the eyelids open.

Ingestion : In case of ingestion do not cause vomit, seek immediately for medical advice and show them this safety data sheet.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Agents : Alcohol Resistant Foam, CO2, fire fighting dust. Do not use water jet with pressure.

Special hazards during fire fighting : The fire produces dense, black smoke. Freeze with water the closed containers that are exposed in fire.

Special Protective Equipment : Use suitable respiratory device and suitable protective clothes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid contact with skin, eyes and the inhalation of vapors. Wear protective clothes.

Environmental precautions : Do not allow the product to reach ground/soil. Prevent material from reaching sewage system, holes and cellars. Inform respective authorities in case product reaches water or sewage system.

Clean up methods : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the material collected according to regulations.

7. HANDLING AND STORAGE

Handling : The vapours can form explosive mixtures with air. Prevent the creation of flammable or explosive concentration of vapours in air and avoid concentration of vapours bigger than the limits of professional report. Moreover, the product should be used only in spaces in which do not exist sources of lighting without cover and sources of ignition. Protect the electric equipment according to the suitable method.
For the induction of static electricity at the duration of transfusion, ground the container properly. The operators should wear anti-static footwear and clothing and the floor should be grounded. The container must be maintained hermetically closed. Keep away from heat, sparks and flames. It should not be used with tools that can cause spark.
Avoid contact with skin and eyes. Avoid the inhalation of

dust, particles and vapours that are created during the application of this preparation. Avoid the inhalation of dust that is created at the duration of work of rubbing. The consumption of food, drinks and the smoking should be prohibited in spaces of handling, storage and treatment of this material. The workers should wash their hands before the reception of food, drinks and the smoking. Wear suitable personal protective equipment (see also chapter 8).
Never use pressure in order to empty the container. Maintain always the product in containers manufactured from the same material with the initial container.
If the operators are spraying should work in booth of spraying. In such circumstances they should wear respiratory appliance at the duration of process of spraying and until the concentration of particles and steams of solvent falls under the limits of reports.

Storage : Store according to the local regulations. Read the precautions that are written in the label. Store in cool, well ventilated space far from incompatible materials and sources of ignition.
Keep away from: Oxidant mediums, powerful alkalis, powerful acids. The smoking is prohibited. Prevent the access in not permitted individuals. Close hermetically and carefully the containers that have been opened and maintain them in straight place. Do not empty the rest of the content in the sewerage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Mechanical measures : Provide sufficient ventilation. Where it is practical possible, should be used suitable ventilation system.

Equipment of personal protection

Respiratory protection : If the workers are exposed in concentrations above the limit of report, it should be used suitable respiratory devices.

Protection of skin/ body : The personnel should wear protective clothes that cover all the parts of the body.

Protection of hands : For extended or repeated work, use gloves of neoprene or nitrile.

Eye Protection : Wear safety glasses.

Control of environmental report : Do not leave the material to induce in sewerages.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Paste
Odour	: Amine
Colour	: Light Yellow
Ignition Point	: Not calculated
Boiling point	: Not calculated
Flammable point	: Not calculated
Pressure of vapors	: Not calculated
Viscosity at 23 °C	: ≈ 150 mPa.s
Density	: 1.00 g/ml
Solubility	: Insoluble in cold and hot water

10. STABILITY AND REACTIVITY

Conditions that should be avoided	:It is not decomposed under normal use. Avoid high temperatures.
Materially that should be avoided	:Drastic metals like Sodium, Calcium, Strong Acids and oxidant factors. Organic acids like Citric acid and Sodium Hypochlorite. Materials that reacts with hydroxy compounds. The material corrodes slowly copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides can lead to violent split of peroxides with probability of explosion. It should not come in contact with nitride acid or even with atmosphere that has high concentration of nitride acid because forms dangerous substances for the health.
Dangerous decomposition materials	:Nitric acid, Ammonia, Nitride oxide. Carbon monoxide, Carbon Dioxide, Alheydes, Nitrozamine.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 > 2,000 mg/ kg.
Acute inhalation toxicity	: No Data Available
Acute dermal toxicity	: LD50 > 2,000 mg/kg
Eye irritation	: Corrosive
Skin irritation	: Corrosive

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability	: The solvent is readily biodegradable, but the product contains components that are persistent in the environment.
Bioaccumulation	: Not expected to bio accumulate significantly.
Ecotoxicity effects	
Toxicity to fish	Expected to be slightly toxic, 10 < LC/EC/IC 50 <= 100 mg/l.
Toxicity to algae	Expected to be slightly toxic, 10 < LC/EC/IC 50 <= 100 mg/l.
Acute toxicity – Invertebrates	Expected to be slightly toxic, 10 < LC/EC/IC 50 <= 100 mg/l.
Mobility	: Sinks in fresh water, but will float on seawater. Partly dissolves, but a significant proportion will remain after one day. If product enters soil, one or more constituents will be mobile and may contaminate groundwater.
Sewage treatment	: Practically non toxic, LC/EC/IC 50 > 100 mg/l .
Basis for assessment	: Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar products.

13. DISPOSAL CONSIDERATIONS

Do not release it in sewerages or in aquatic sources. Dispose according to all the national and local regulations.

Dangerous Waste : The classification of product fulfils the criteria for dangerous waste.

14. TRANSPORT INFORMATION

Transport on road ADR/RID

Number UN : 2735
Name of Transport Document : CONTAINS POLYAMINE AND BENZYL ALCOHOL

Class : 8
Packaging group : III
Label ADR/RID

Transport with boat in the sea IMDG

Number UN : 2735
Name of Transport Document : CONTAINS POLYAMINE AND BENZYL ALCOHOL

IMDG class : 8

Sea waste : -
Packaging group : III
Label IMDG

Air transport ICAO/IATA

Number UN : 2735
Name of Transport Document : CONTAINS POLYAMINE AND BENZYL ALCOHOL

ICAO/IATA Class : 8
Packaging group : III
Label ICAO/IATA

15. REGULATORY INFORMATION

Regulations E.C. :The preparation is classified as follows, according to directive 1272/2008/EC .

Contains : Epoxy Hardener Contains polyamine and benzyl alcohol.

Dangerous

Hazard statement(s)

H314: Causes severe skin burns and eye damage
H302: Harmful if swallowed
H317: May cause an allergic skin reaction
H412: Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P280, Wear protective gloves/protective clothing/eye protection/face protection.
P273, Avoid release to the environment

P302+352, IF ON SKIN: Gently wash with plenty of soap and water.
P305+P351+P338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313, If skin irritation or rash occurs: Get medical advice/ attention.
:The preparation is classified as follows, according to directive 1999/45/EC .

Regulations E.C.

Symbol(s):

Corrosive

Risk Phrases : R34, R21/22, R43, R52/53

R34 Causes burns.
R43 May cause sensitization by skin contact
R21/22 Harmful in contact with skin and if swallowed.
R52/53 Harmful to aquatic organism
May cause long-term adverse effects in the aquatic environment

Safety Phrases : S26, S36/37/39, S45, S61

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable gloves, clothes and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).
S61 Avoid release to the environment. Refer to special instructions / safety data sheets.

Other regulations

Directive 2004/42/EC
:Cat A/j < 500g/l , consist <200 g/l.

16. OTHER INFORMATION

These statements are based on our current level of knowledge, do not constitute guarantee for the attributes of product neither justify legal consequences.

Relevant (Hazard) H-phrases

H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction
H302: Harmful if swallowed
H312: Harmful in contact with skin
H332: Harmful if inhaled
H411: Toxic to aquatic life with long lasting effects
H412: Harmful to aquatic life with long lasting effects

Relevant (Risk) R-phrases

R34 : Causes burns.
R20/21/22: Harmful when inhaled, in contact with skin and in case of ingestion.

R 43: May cause sensitization by skin contact
R 51/53: Toxic to aquatic organisms .May cause long-term adverse effects in the aquatic environment.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

The information that is provided through this Safety Data Sheet is right according to our knowledge and information at the day of publication. The information that are given must be used only as a guide of use, storage, disposal and transport and it should not be considered as guarantee for it's quality.
The information that is given is related only for this material and not in combination with other materials and with other processes.

Chalandri, 10/3/2013

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