



SAFETY DATA SHEET **AA1100 Armor Art Ultra Clear Epoxy Casting Resin**

According to Regulation (EU) 2015/830

Precautionary Statements

- P261 Avoid breathing vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower.
P312 Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Substance	EC No.	CAS No.	Content	Classification (EC 1272/2008)
Reaction product: bisphenol-A-(epichlorohydrin); epoxy resin (number average molecular weight \leq 700)	500-033-5	25068-38-6	\geq 65-75 %	Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Eye Irrit. 2 - H319 Aquatic Chronic 2 - H411
Reaction products of propane-1,2-diol, propoxylated by amination of the terminal hydroxyl groups	---	9046-10-0	20-30%	Skin Corr. 1B - H314
1,6-Esandiolo diglicidil etere	240-260-4	16096-31-4	10-20%	Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Eye Irrit. 2 - H319 Aquatic Chronic 3 - H412
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	255-437-1	41556-26-7	<1 %	Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410
Methyl(1,2,2,6,6-pentamethyl-4-piperidiny)l)sebacate	280-060-4	82919-37-7	<1 %	Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

The Full Text for all Hazard Statements are Displayed in Section 16.

Composition Comments

- The data shown are in accordance with the latest EC Directives.
- See Section 8 for exposure limits.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

If breathing is irregular or stopped, administer artificial respiration.
In case of inhalation, consult a doctor immediately and show him packing or label.

Ingestion

Do NOT induce vomiting.
Give nothing to eat or drink.

Skin contact

Immediately take off all contaminated clothing. OBTAIN IMMEDIATE MEDICAL ATTENTION.



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Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

Eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Protect uninjured eye.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No specific treatment. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Fire can be extinguished using: Water spray. Alcohol resistant foam (ATC type). Dust., carbon dioxide(CO₂)
Extinguishing media which must not be used for safety reasons: High power water jet.

5.2. Special hazards arising from the substance or mixture

During a fire, the smoke may contain the original substance as well as unspecified toxic and / or irritating compounds. Hazardous fire byproducts may include: Phenolics. Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

Protective equipment for fire-fighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand.

6.3. Methods and material for containment and cleaning up

Large Spillages: Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers.

Flush with plenty of water to clean spillage area.

Small Spillages: Wear necessary protective equipment. Absorb spillage with suitable absorbent material.



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6.4. Reference to other sections

For personal protection, see section 8.
See section 11 for additional information on health hazards.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.
Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Reaction product: bisphenol-A- (epichlorohydrin); epoxy resin (number average molecular weight ≤ 700)

DNEL

Long term systemic effects - inhalation	12.25 mg / m ³
Acute systemic effects - inhalation	12.25 mg / m ³
Long-term systemic effects-dermal	8.33 mg / kg bw / day
Acute systemic effects-dermal	8.33 mg / kg bw / day
Long-term systemic effects-dermal	3.571 mg / kg bw / day
Acute systemic effects-dermal	3.571 mg / kg bw / day
Long-term systemic effects-oral	0.75 mg / kg bw / day
Acute systemic effects-oral	0.75 mg / kg bw / day

PNEC

Fresh water	0.006 mg / l
Sea water	0.001 mg / l
Aqua (intermittent oscillations)	0.018 mg / l
STP	10 mg / l
Fresh water sediment	0.996 mg / kg sediment dw
Sea water sediment	0.1 mg / kg sediment dw
Soil	0.196 mg / kg soil dw
Oral	11 mg / kg food

8.2. Exposure controls

Protective equipment



Process conditions

Use ventilation to keep airborne materials under exposure-limit guidelines.
If no valid exposure limits are specified, general ventilation in the majority of the applications may be sufficient.
For some operations, a local ventilation device may be required.



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Respiratory equipment

If there is a possibility of exceeding the prescribed exposure limits, inhalation protection devices should be used. Use a respiratory protection device if you do not have valid exposure guidelines, experience irritation or irritation to the respiratory tract, or if risk assessment is required. If you feel uncomfortable, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator.

Hand protection

Use gloves that are chemically resistant under EN374. Recommended gloves are as follows; Butyl rubber, ethyl vinyl alcohol laminate (EVAL), nitrile / butadiene rubber (nitrile or NBR). Neoprin, PVC. In case of prolonged or repeated contact, exposure, it is recommended to use a glove with a protection class of 6 penetration time > 480 min. It is recommended to use a glove with a protection class 1 or higher and a penetration time > 10 min. Depending on the substance but also on the duration of exposure, the glove thickness should be at least 0,35 mm. During the selection of a particular glove for a specific application and duration of use in the workplace, the following should be observed, not limited to the following. It is recommended that this information on the gloves be supplied to the supplier in relation to other chemicals to be handled, physical requirements (protection against cut / puncture, personal skill, protection against heat), reactions that may be encountered in the body against glove material.

Eye protection

Wear approved safety goggles. Use face shield in case of splash risk.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

Skin protection

Wear protective clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Transparent
Colour	No data available.
Odour	Slightly odour
Solubility	No data available.
Initial boiling point and boiling range	No data available.
Melting Point	No data available.
pH Value	No data available.
Flash point	No data available.
Auto-Ignition Temperature	No data available.
Bulk Density	No data available.
Density	No data available.
Vapour pressure	No data available.
Vapour density	No data available.
Specific Gravity(water=1)	No data available.
Viscosity (dynamic)	No data available.
Partition Coefficient (N-octanol/water)	No data available.



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Explosion properties No data available.

Oxidation properties No data available.

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions

10.3. Possibility of hazardous reactions

The following materials may react strongly with the product: Oxidising agents.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented.

10.5. Incompatible materials

Avoid contact with materials that cause oxidation. Prevent contact with acids and bases. Avoid the unconscious contact with Amine groups.

10.6. Hazardous decomposition products

The formation of hazardous decomposition products depends on the temperature, the availability of air supply and other substances. During decomposition, the gases are released. The uncontrolled exothermic reaction of epoxy resins releases phenols, carbon monoxide and water.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

LD50, oral, rat >10.000mg/kg

LD50, dermal, rabbit >5.000 mg/kg

Reaction product: bisphenol-A- (epichlorohydrin); epoxy resin (number average molecular weight ≤ 700)

Oral LD50 OECD 420 > 2000 mg/kg rat, female

Dermal LD50 OECD 402 > 2000 mg/kg 24 hours rat

1,6-Esandiolo diglicidil etere

Oral LD50 3000 mg/kg, rat

Reaction products of propane-1,2-diol, propoxylated by amination of the terminal hydroxyl groups

Oral LD50 2885 mg/kg, rat

Dermal LD50 2980 mg/kg, rabbit

Skin corrosion/irritation

Causes severe skin burns

Serious eye damage/irritation

Causes severe eye damage

Respiratory or skin sensitisation:

May cause an allergic skin reaction.



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12.6. Other adverse effects

There is no substance on the Montreal Protocol list of substances that consume the ozone layer in this product..

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste, empty containers and residues in accordance with local authority requirements.
Environmental manager must be informed of all major spillages.

SECTION 14: TRANSPORT INFORMATION

General

This substance/mixture may be classified as hazardous. However, it may be dispatched as non-hazardous substance in cases when the packaging is under limited / exceptional quantity. Please follow the relevant regulations.

14.1. UN number

UN No. (ADR/RID/ADN)	2735
UN No. (IMDG)	2735
UN No. (ICAO)	2735

14.2. UN proper shipping name

Proper Shipping Name AMINES, LIQUID, CORROSIVE, N.O.S.
(Reaction products of propane-1,2-diol, propoxylated by amination of the terminal hydroxyl groups)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	8
ADR/RID/ADN Class	Class 8: Corrosive substance
ADR Label No.	8
IMDG Class	8
ICAO Class/Division	8
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

Yes.



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14.6. Special precautions for user

Limited Quantities	1L
EMS	F-A, S-B
Emergency Action Code	2X
Hazard No. (ADR)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Uk Regulatory References

Highly Flammable Liquid Regulations 1972.

Guidance Notes

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

EU Legislation

- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. System of specific information relating to Dangerous Preparations. 2001/58/EC.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms used in the safety data sheet

ADR: European Agreement on International Carriage of Dangerous Goods by Road.

ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.

RID: European Agreement on International Carriage of Dangerous Goods by Rail.

IATA: International Air Transport Association.

ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

TWA: Time weighted average

ATE: Estimated value of acute toxicity

EC No: European Community number

CAS: Chemical Theory Service.

LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).

LC50: Substance concentration causing 50% (half) death in the test animals group.

EC50: Effective Concentration of the substance causing the maximum of 50%.

PBT: Persistent, Bioaccumulative and Toxic substance.

vPvB: Very Permanent, Very Biofriendly.

SEA: Classification, labeling, packaging regulation

DNEL: Derivative Inactive Level

PNEC: Estimated Unaffected Concentration

STOT: Specific Target Organ Toxicity

Hazard Statements In Full

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.



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H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Classification reason

Skin Corr. 1B - H314 :Calculation method
Skin Sens. 1 - H317 :Calculation method
Aquatic Chronic 2 - H411 :Calculation method

Revision Comments

The SDS is written according to current regulation.

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