



SAFETY DATA SHEET
Armor Art Metallic Epoxy Pigment
According to Regulation (EU) No 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	Armor Art Metallic Epoxy Pigment
Product type	Metallic Aluminium

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Industrial use.
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1.3. Details of the supplier of the safety data sheet

Supplier	Armor Chemical
	Abide-i Hürriyet Cad. No:211,34381
	Şişli/İstanbul
	Tel: 0 212 970 11 48
	Fax: 0 850 220 04 51
	info@armorchemical.com

1.4. Emergency telephone number

Tel: 0 212 970 11 48

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Irrit. 2 - H315; Skin Sens. 1 - H317; Eye Irrit. 2 - H319
Environment	Aquatic Chronic 2 - H411

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word	Warning
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Contains	Reaction product: bisphenol-A- (epichlorohydrin) Reaction product: Bisphenol F- (epichlorohydrin) Alkyl (C12-14) glycidyl ether Poly(oxy-1,2-ethandiyl),.alpha.-[(2Z)-3-carboxy-1-oxo-2-propenyl]-.omega.-hydroxy-, C9-11-alkyl ethers
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Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.



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Precautionary Statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of 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.
P501	Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Name	EC No.	CAS No.	Content %	Classification (EC 1272/2008)
Reaction product: bisphenol-A-(epichlorohydrin); epoxy resin (number average molecular weight ≤ 700)	500-033-5	25068-38-6	40- 60 %	Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Eye Irrit. 2 - H319 Aquatic Chronic 2 - H411
Alkyl (C12-14) glycidyl ether	271-846-8	68609-97-2	10-20 %	Skin Irrit. 2 - H315 Skin Sens. 1 - H317
Reaction product: Bisphenol F-(epichlorohydrin); epoxy resin	500-006-8	9003-36-5	10-20 %	Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411
Aluminium powder (stabilised)	231-072-3	7429-90-5	1-5 %	Flam. Sol. 1 - H228 Water-react. 2 - H261
Poly(oxy-1,2-ethandiyl),.alpha.-[(2Z)-3-carboxy-1-oxo-2-propenyl]-.omega.-hydroxy-, C9-11-alkyl ethers	---	709014-50-6	1-5 %	Skin Sens. 1 - H317
Naphtha (petroleum), hydrotreated heavy	265-150-3	64742-48-9	1-3 %	Flam. Liq. 3 - H226 Asp. Tox. 1 - H304 Skin Irrit. 2 - H315 BHOT Tek Mrz. 3- H336 Aquatic Chronic 2 - H411
Hydrocarbons C9 aromatics	918-668-5	64742-95-6	1-3 %	Flam. Liq. 3 - H226 Asp. Tox. 1 - H304 BHOT Tek Mrz. 3- H335 BHOT Tek Mrz. 3- H336 Aquatic Chronic 2 - H411

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.



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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Take victim immediately from exposure area to another location.
Apply general first aid, rest and keep warm and provide fresh air. Get medical attention if any discomfort continues.

Ingestion

Never make an unconscious person vomit or drink fluids! Rinse mouth thoroughly. Get medical attention immediately!

Skin contact

Remove victim contamination area. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact

Take victim immediately from exposure area to another location. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention. Continue to washing with water.

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

- Inhalation** : Inhalation of dust may irritate the respiratory tract.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Eye contact : Causes eye irritation.

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Fire can be extinguished using: Alcohol-resistant foam, water spray, Carbon dioxide (CO₂) or dry chemical.

5.2. Special hazards arising from the substance or mixture

Specific hazards

In case of fire, toxic gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. In the event of fire, cool tanks with water spray. Keep run-off water out of sewers and water sources. Emergency personnel, except of course provide the move away from the fire area.

Protective equipment for fire-fighters

Use air-supplied respirator during fire fighting. Face mask, protective gloves and safety helmet.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.
Avoid inhalation of vapours and contact with skin and eyes.
Ventilate area of leak or spill.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Large Spillages: Absorb with vermiculite, dry sand or earth and place into containers. Collect in containers and seal securely.



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Label containers appropriately. Remove containers and flush area with water.

Small Spillages: Collect with absorbent, non-combustible material into suitable containers.

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

Obtain special instructions before use. Avoid contact with skin and eyes. Do not inhale the vapours.
Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.
Protect from direct sunlight. Keep away from food, drink and animal feeding stuffs.
Keep containers upright. Isolate from incompatible substances.

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

Provide eyewash, quick drench

Engineering measures

Provide adequate ventilation.



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Respiratory equipment

For emergencies use a full-facepiece positive-pressure, air-supplied respirator.

Hand protection

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Before removing gloves clean them with soap and water.

Eye protection

Use chemical safety goggles and/or foil face shield

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Promptly remove any clothing that becomes contaminated.

Wash promptly with soap & water if skin becomes contaminated.

Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Skin protection

Lab coat, apron or coveralls must be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	No data available.
Odour	No data available.
Solubility	No data available.
pH Value	No data available.
Initial boiling point and boiling range	No data available.
Melting Point	No data available.
Flash point	No data available.
Auto-ignition Temperature	No data available.
Vapor Pressure	No data available.
Vapor density	No data available.
Density	No data available.
Specific Gravity(water=1)	No data available.
Viscosity	No data available.
Partition Coefficient (N-octanol/water)	No data available.
Explosive properties	No data available.
Oxidising properties	No data available.

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal temperature conditions and recommended use.

10.2. Chemical stability

Stable under the prescribed storage conditions.



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10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid extreme temperatures.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

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

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation:

May cause an allergic skin reaction.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproduction Toxicity

No data available.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.



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12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Should not be allowed to enter waterways.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Dispose empty containers, rubbish and waste in accordance with local authority requirements.
Environmental manager must be informed of all major spillages. Contact specialist disposal companies.
Please recycle empty pack. Do not re-use empty containers. Clean empty container with water.

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

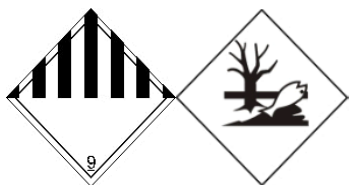
UN No. (ADR/RID/ADN)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082

14.2. UN proper shipping name

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin))
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14.3. Transport hazard class(es)

ADR/RID/ADN Class	9
ADR/RID/ADN Class	Class 9: Miscellaneous dangerous substances and articles
ADR Label No.	9
IMDG Class	9
ICAO Class/Division	9
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III



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ICAO Packing group III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

Yes.

14.6. Special precautions for user

Limited Quantities	5L
EMS	F-A, S-F
Emergency Action Code	•3Z
Hazard No. (ADR)	90

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

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

Revision Comments

This is first issue.



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Issued By

Büşra Tarakcı / **CRAD** Çevre Risk Analiz Denetim ve Eğitim Hizm. A.Ş.
www.crad.com.tr gbf@crad.com.tr

Issued Note

This SDS is prepared based on the information and documents received from product owner. CRAD or/and SDS author shall not be responsible for incorrect prepared of SDS and pecuniary loss or intangible damages because of deficient or wrong information and documents which comes from product owner.

Hazard statements in full

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.