



SAFETY DATA SHEET
Armor Art Opaque Epoxy Pigment
According to Regulation (EU) 2015/830

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

1.1. Product identifier

Product name Armor Art Opaque Epoxy Pigment
Product Types Black, blue, green, red, white, yellow

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

Identified uses PRPCOLOR Epoxy Pigment pastes consisting of pigments, Epoxy Resin and additives. They are used as Colorant in the industries sectors.

1.3. Details of the supplier of the safety data sheet

Supplier Armor Chemical
Abide-i Hürriyet Cad. No:211,34381
Şişli/Istanbul
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

Contains Bisphenol A epoxy resin

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.
EUH205	Contains epoxy constituents. May produce an allergic reaction.



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Precautionary Statements

P261	Avoid breathing vapours/spray.
P264	Wash skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
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.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P501	Dispose of contents/container to to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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)
Bisphenol A epoxy resin	500-033-5	25068-38-6	≥30-≤90 %	Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Eye Irrit. 2 - H319 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.
- See Section 8 for exposure limits.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Information

First-aiders should pay attention to their protection and use the recommended protective clothing (chemical resistant gloves, protection against splashing). If exposure potential is present, see Section 8. for specific personal protective equipment.

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



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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.

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

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

After inhalation: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.

After skin contact: Causes skin irritation. May cause moderate irritation.

After eye contact: Causes eye irritation. May cause moderate irritation, including burning sensation, tearing, redness or swelling

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). ABC 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

Decomposition products may include the following materials: Carbon dioxide, carbon monoxide, halogenated compounds, metal oxide/oxides.

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

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

Special protective actions for fire-fighters

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.

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Provide adequate ventilation.



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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.

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

Use only outdoors or in a well ventilated area. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood.
Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store, if possible, in a cool, well ventilated place away from **incompatible materials**. Keep container closed when not in use.
Incompatible products : Oxidizing agent. Strong bases. Strong acids.
Storage area : Store in a well - ventilated place.
Special rules on packaging : Store in a closed container.

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

Bisphenol A epoxy resin

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



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Soil
Oral

0.196 mg / kg soil dw
11 mg / kg food

8.2. Exposure controls

Protective equipment



Process conditions

Avoid all unnecessary exposure. Gas mask. Protective clothing. In case of splash hazard: safety glasses. Gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Respiratory equipment

Wear respiratory protection.

Hand protection

Use gloves that are chemically resistant under EN374. Recommended gloves are as follows; nitrile- rubber protective gloves.

Eye protection

Use close fitting safety goggles, don't use eye lens.

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	Liquid-paste
Colour	Various colors
Odour	Slight
Solubility	Soluble in solvent Insoluble in water.
Initial boiling point and boiling range	No data available.
Melting Point	No data available.
pH Value	6-8 calculated.
Flash point	>93,3°C, closed cup, estimated
Auto-Ignition Temperature	No data available.
Bulk Density	No data available.
Density	1,10-1,25 g/ml
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

VOC 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

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

10.4. Conditions to avoid

No specific data.

10.5. Incompatible materials

No specific data.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Bisphenol A epoxy resin

Oral LD50 OECD 420 > 2000 mg/kg rat, female
Dermal LD50 OECD 402 > 2000 mg/kg 24 hours rat
Inhalation (vapours) LC0 0.000008 ppm 5 hours rat (male)

Skin corrosion/irritation

Bisphenol A epoxy resin

Skin: Slight irritation OECD 404 1; 24; 48; 72; 168 hours Rabbit
Causes severe skin burns.
Short-term contact may cause skin irritation with local redness.

Serious eye damage/irritation

Causes serious eye damage.

Bisphenol A epoxy resin

Eye: Not irritating.	OECD 405 1; 24; 48; 72; 168 hours	Rabbit
Eye: Irritation	24; 48; 72 hours; 8 days	Rabbit
Eye: Irritant	1; 24; 48; 72; 168 hours	Rabbit

Respiratory or skin sensitisation:

May cause an allergic skin reaction.

Bisphenol A epoxy resin

Exposure route	Result	Method	Species	Note
Dermal	sensitizing	OECD 429	Mouse(female)	Experimental value



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Germ cell mutagenicity

Genotoxicity - In Vitro/ In Vivo

Based on available data the classification criteria are not met.

Bisphenol A epoxy resin-in vitro

Result	Method	Test	Effect	Note
Metabolic activation negative, negative without metabolic activation	OECD 472	Bacteria (S.typhimurium)	No effect	Experimental value
Pozitive	other	Mouse (lymphoma L5178Y cells)		Experimental value

Reaction product: bisphenol-A- (epichlorohydrin); epoxy resin (number average molecular weight \leq 700- in vivo

Result	Method	Test	Note
Negative	Chromosome aberration assay	Mouse(male)	Experimental value

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive Toxicity – Fertility/ Development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Bisphenol A epoxy resin

The material is toxic to aquatic organisms. (LC50 / EC50 / IC50 between 1 and 10 mg / L for the most susceptible species).

Acute aquatic toxicity- fish

LC50, Oncorhynchus mykiss (Rainbow trout), semi-static test, 96 h, 2 mg / l

Acute aquatic toxicity -aquatic invertebrates

EC50, Daphnia magna , static test, 48 hours, 1,8 mg / l

Acute aquatic toxicity- aquatic plants

ErC50, Scenedesmus capricornutum , static test, 72 hours, Growth rate limitation, 11 mg / l

Acute aquatic toxicity- bacterial

IC50, Bacteria, 18 Hours,> 42.6 mg / l

Acute chronic toxicity- aquatic invertebrates

NOEC, Daphnia magna, semi-static test, 21 days, 0.3 mg / l

MATC (Acceptable Highest Toxicant Level), Daphnia magna,semi-static test, 21 days, 0,55 mg



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12.2. Persistence and degradability

Bisphenol A epoxy resin

Biodegradation: This material is not readily biodegradable to stringent testing criteria; however, these results do not imply that the material is not biodegradable under environmental conditions.

10 Days: Not applicable.

Biodegradation: 12%

Exposure time: 28 days

Method: OECD Test Guideline 302B or Equivalent

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Bisphenol A epoxy resin

Potential low mobility in the ground (between POC 500 and 2000). Given the very low Henry constant, the final outcome of natural water bodies and evaporation from wet soil is not expected to be significantly affected.

Segregation coefficient (Koc): 1800 - 4400 Estimated.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

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.

20 01 27 * Paints, inks, adhesives and resins containing dangerous substances

15 01 10 * Contaminated packaging containing hazardous substances residues or hazardous materials

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.
(Bisphenol A epoxy resin)

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

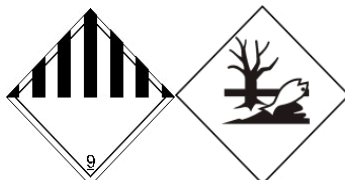
IMDG Class 9



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ICAO Class/Division 9

Transport Labels



14.4. Packing group

ADR/RID/ADN Packing group III

IMDG Packing group III

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

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.



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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
BHOT: Specific Target Organ Toxicity

Hazard Statements In Full

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.
EUH205 Contains epoxy constituents. May produce an allergic reaction.

Revision Comments

Revised in compliance with current regulations.

Issued By

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

Issued Note

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