

SAFETY DATA SHEET



Jota Armour II Comp A

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

1.1 Product identifier

Product name	: Jota Armour II Comp A
Product code	: 57722
Product description	: Paint.
Product type	: Liquid.
Other means of identification	: Not available.

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

- Use in coatings - Industrial use
- Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

Jotun Boya Sanayi ve Ticaret A.Ş.
Maslak Mahallesi, Yelkovan Sokak
Maslak Square Sitesi No:2
İç Kapı No: 121
Sarıyer / İstanbul

Date of previous issue : No previous validation

1.4 Emergency telephone number

National Poison Information Center

- +90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi (www.uludag.edu.tr/uludag/zehir.html)
a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.
b. ACİL İLK YARDIM MERKEZİ:112
c. İTFAİYE:110

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to regulation SEA: RG.-10/12/2020-31330

Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Dam. 1, H318
Skin Sens. 1, H317
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :



Signal word :

Danger.

Hazard statements :

H226 - Flammable liquid and vapour.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General :

Not applicable.

Prevention :

P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapour.

Response :

P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage :

P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal :

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

Hazardous ingredients :

epoxy resin (MW ≤ 700)
 hydrocarbons, c9-unsatd., polymd.
 epoxy resin (MW 700-1200)
 2-methylpropan-1-ol
 benzyl alcohol

Supplemental label elements :

Contains epoxy constituents. May produce an allergic reaction.

Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles :

Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings :

Not applicable.

Tactile warning of danger :

Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB :

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification :

None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

: Mixture

Product/ingredient name	Identifiers	%	SEA: RG.-10/12/2020-31330	Type
epoxy resin (MW ≤ 700)	EC: 216-823-5 CAS: 1675-54-3	<25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	[1]
talc (non-asbestos form)	EC: 238-877-9 CAS: 14807-96-6	≤10	Not classified.	[2]
hydrocarbons, c9-unsatd., polymd.	CAS: 71302-83-5	≤10	Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
xylene	EC: 215-535-7 CAS: 1330-20-7	≤10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
epoxy resin (MW 700-1200)	CAS: 25036-25-3	≤5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	[1]
2-methylpropan-1-ol	EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≤5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
titanium dioxide	EC: 236-675-5 CAS: 13463-67-7	≤3	Not classified.	[2]
benzyl alcohol	EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	≤3	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317	[1]
ethylbenzene	EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	[1] [2]

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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. 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** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful 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
metal oxide/oxides

5.3 Advice for firefighters

- 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 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.

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container

SECTION 6: Accidental release measures

for disposal according to local regulations.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : 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.

Liquid paint and washing water with paint residues must not be emptied into drains or watercourses. It must be delivered to an approved local environmental protection station.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. 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. See Section 10 for incompatible materials before handling or use.

See Technical Data Sheet / packaging for further information.

Regulation on the prevention of major industrial accidents and reduction of their effects - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonnes	50000 tonnes

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Talc (Mg ₃ H ₂ (SiO ₃) ₄)	ACGIH TLV (United States, 1/2025) A4. TWA 8 hours: 2 mg/m ³ . Form: Respirable fraction.
xylene	TR ISGGM OEL (Turkey, 10/2023) [Ksilen] Absorbed through skin. TWA 8 hours: 221 mg/m ³ . TWA 8 hours: 50 ppm. STEL 15 minutes: 442 mg/m ³ . STEL 15 minutes: 100 ppm.
2-methylpropan-1-ol	TR ISGGM OEL (Turkey, 10/2023) TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m ³ .
titanium dioxide	ACGIH TLV (United States, 1/2025) A3. TWA 8 hours: 2.5 mg/m ³ . Form: respirable fraction, finescale particles.
ethylbenzene	TR ISGGM OEL (Turkey, 10/2023) Absorbed through skin. TWA 8 hours: 442 mg/m ³ . TWA 8 hours: 100 ppm. STEL 15 minutes: 884 mg/m ³ . STEL 15 minutes: 200 ppm.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result
2,2-bis[4(2,3-epoksipropoksi)fenil]-propan	DNEL - General population - Long term - Dermal 89.3 µg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Oral 0.5 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Dermal 0.75 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Inhalation 0.87 mg/m ³ <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Inhalation 4.93 mg/m ³ <u>Effects</u> : Systemic
Talc (Mg ₃ H ₂ (SiO ₃) ₄)	DNEL - General population - Short term - Inhalation 1.08 mg/m ³ <u>Effects</u> : Systemic

SECTION 8: Exposure controls/personal protection

DNEL - General population - Long term - Inhalation

1.08 mg/m³

Effects: Systemic

DNEL - General population - Short term - Inhalation

1.8 mg/m³

Effects: Local

DNEL - General population - Long term - Inhalation

1.8 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

2.16 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

2.16 mg/m³

Effects: Systemic

DNEL - General population - Long term - Dermal

2.27 mg/cm²

Effects: Local

DNEL - Workers - Short term - Inhalation

3.6 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

3.6 mg/m³

Effects: Local

DNEL - Workers - Long term - Dermal

4.54 mg/cm²

Effects: Local

DNEL - General population - Long term - Dermal

21.6 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

43.2 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Oral

160 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Oral

160 mg/kg bw/day

Effects: Systemic

hydrocarbons, C9-unsaturated, polymerized

DNEL - Workers - Long term - Dermal

3.5 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

1.41 mg/m³

Effects: Systemic

xylene

DNEL - General population - Long term - Oral

5 mg/kg bw/day

SECTION 8: Exposure controls/personal protection

Effects: Systemic

DNEL - General population - Long term - Inhalation

65.3 mg/m³

Effects: Local

DNEL - General population - Long term - Inhalation

65.3 mg/m³

Effects: Systemic

DNEL - General population - Long term - Dermal

125 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

212 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

221 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

221 mg/m³

Effects: Systemic

DNEL - General population - Short term - Inhalation

260 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

260 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Inhalation

442 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

442 mg/m³

Effects: Systemic

2-methylpropan-1-ol

DNEL - General population - Long term - Inhalation

55 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

310 mg/m³

Effects: Systemic

DNEL - General population - Long term - Inhalation

55 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

310 mg/m³

Effects: Local

titanium dioxide

DNEL - General population - Long term - Inhalation

28 µg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

170 µg/m³

SECTION 8: Exposure controls/personal protection

benzyl alcohol

Effects: Local

DNEL - General population - Long term - Oral

4 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Dermal

4 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

5.4 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Dermal

8 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Oral

20 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Dermal

20 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

22 mg/m³

Effects: Systemic

DNEL - General population - Short term - Inhalation

27 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Dermal

40 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Inhalation

110 mg/m³

Effects: Systemic

ethylbenzene

DMEL - Workers - Long term - Inhalation

442 mg/m³

Effects: Local

DMEL - Workers - Short term - Inhalation

884 mg/m³

Effects: Systemic

DNEL - General population - Long term - Oral

1.6 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

15 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

77 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Dermal

180 mg/kg bw/day

SECTION 8: Exposure controls/personal protection

Effects: Systemic

DNEL - Workers - Short term - Inhalation

293 mg/m³

Effects: Local

PNECs

Product/ingredient name

2,2-bis[4(2,3-epoksipropoksi)fenil]-propan

Result

Fresh water

0.006 mg/l

Marine

0.0006 mg/l

Sewage Treatment Plant

10 mg/l

Fresh water sediment

0.996 mg/l

Marine water sediment

0.0996 mg/l

Soil

0.196 mg/l

hydrocarbons, C9-unsaturated, polymerized

Fresh water

54 µg/l

Marine

5.4 µg/l

Sewage Treatment Plant

2.2 mg/l

Fresh water sediment

1584 mg/kg dwt

Marine water sediment

158 mg/kg dwt

Soil

316.7 mg/kg dwt

Secondary Poisoning

200 mg/kg

xylene

Fresh water

0.327 mg/l

Marine

0.327 mg/l

Sewage Treatment Plant

6.58 mg/l

Fresh water sediment

12.46 mg/kg dwt

Marine water sediment

12.46 mg/kg dwt

Soil

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	2.31 mg/kg dwt
2-methylpropan-1-ol	<p>Fresh water 0.4 mg/l</p> <p>Marine 0.04 mg/l</p> <p>Sewage Treatment Plant 10 mg/l</p> <p>Fresh water sediment 1.52 mg/kg dwt</p> <p>Marine water sediment 0.152 mg/kg dwt</p> <p>Soil 0.0699 mg/kg dwt</p>
benzyl alcohol	<p>Fresh water 1 mg/l</p> <p>Marine 0.1 mg/l</p> <p>Sewage Treatment Plant 39 mg/l</p> <p>Fresh water sediment 5.27 mg/kg dwt</p> <p>Marine water sediment 0.527 mg/kg dwt</p> <p>Soil 0.456 mg/kg dwt</p>
ethylbenzene	<p>Fresh water 0.1 mg/l</p> <p>Marine 0.01 mg/l</p> <p>Sewage Treatment Plant 9.6 mg/l</p> <p>Fresh water sediment 13.7 mg/kg dwt</p> <p>Soil 2.68 mg/kg dwt</p> <p>Secondary Poisoning 20 mg/kg</p>

8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying to EN 166 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to EN 374. Recommended, gloves(breakthrough time) > 8 hours: Viton® (> 0.7 mm), nitrile rubber (> 0.75 mm), 4H/Silver Shield® (> 0.07 mm), Teflon (> 0.35 mm) May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (> 0.35 mm), butyl rubber (> 0.4 mm), PVC (> 0.5 mm), polyvinyl alcohol (PVA) (> 0.3 mm)
- For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Use chemical-resistant protective suit / disposable overall. 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- 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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties**Appearance**

Physical state	: Liquid.
Colour	: Grey. Green.
Odour	: Characteristic.
Odour threshold	: Not applicable.
Melting point/freezing point	: Not applicable.
Initial boiling point and boiling range	: Not available.
Flammability (solid, gas)	: Not applicable.
Upper/lower flammability or explosive limits	: Not available.
Flash point	: Closed cup: 35°C (95°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
pH	: Not applicable.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): >20.5 mm ² /s

Solubility(ies)

:

Media	Result
cold water	Not soluble
hot water	Not soluble

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure : Not available.
Not available.

Density : 1.44 to 1.55 g/cm³

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

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

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
oxidising materials

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

SECTION 10: Stability and reactivity

Shelf life at 23 °C : 48 month(s)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name

2,2-bis[4(2,3-epoksi)propoksi]fenil]-propan

Result

Mouse - Oral - LD50

15600 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Gross Metabolite Changes - Weight loss or decreased weight gain

Rabbit - Dermal - LD50

20 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Gross Metabolite Changes - Weight loss or decreased weight gain

hydrocarbons, C9-unsaturated, polymerized

Rat - Oral - LD50

2000 mg/kg

OECD 423

Rat - Dermal - LD50

2000 mg/kg

OECD 402

xylene

Rat - Oral - LD50

4300 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rabbit - Dermal - TDLo

4300 mg/kg

Toxic effects: Skin After topical exposure - Corrosive

Rat - Inhalation - LC50 Vapour

11 mg/l [4 hours]

2-methylpropan-1-ol

Rat - Oral - LD50

2460 mg/kg

Rabbit - Dermal - LD50

3400 mg/kg

Rat - Inhalation - LC50 Vapour

19200 mg/m³ [4 hours]

benzyl alcohol

Rat - Oral - LD50

1230 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Excitement Behavioral - Coma

ethylbenzene

Rat - Oral - LD50

3500 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

Rabbit - Dermal - LD50

>5000 mg/kg

Rat - Male - Inhalation - LC50 Vapour

11 mg/l [4 hours]

SECTION 11: Toxicological information**Conclusion/Summary [Product]** : Not available.**Acute toxicity estimates**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Jota Armour II Comp A	54545.5	17254.9	N/A	129.4	N/A
xylene	4300	1100	N/A	11	N/A
2-methylpropan-1-ol	2460	3400	N/A	N/A	N/A
benzyl alcohol	1200	N/A	N/A	N/A	N/A
ethylbenzene	3500	N/A	N/A	11	N/A

Skin corrosion/irritation**Product/ingredient name**

2,2-bis[4(2,3-epoksipropoksi)fenil]-propan

xylene

epoxy resin (MW 700-1200)

2-methylpropan-1-ol

titanium dioxide

Result**Rabbit - Skin - Mild irritant**Amount/concentration applied: 500 milligrams**Rat - Skin - Mild irritant**Duration of treatment/exposure: 8 hoursAmount/concentration applied: 60 microliters**Mammal - species unspecified - Skin - Mild irritant****Mammal - species unspecified - Skin - Mild irritant****Human - Skin - Mild irritant**Duration of treatment/exposure: 72 hours**Conclusion/Summary [Product]** : Not available.**Serious eye damage/eye irritation****Product/ingredient name**

2,2-bis[4(2,3-epoksipropoksi)fenil]-propan

xylene

epoxy resin (MW 700-1200)

2-methylpropan-1-ol

benzyl alcohol

Result**Rabbit - Eyes - Severe irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 2 milligrams**Rabbit - Eyes - Mild irritant**Amount/concentration applied: 87 milligrams**Mammal - species unspecified - Eyes - Mild irritant****Mammal - species unspecified - Eyes - Irritant****Mammal - species unspecified - Eyes - Mild irritant****Conclusion/Summary [Product]** : Not available.**Respiratory corrosion/irritation**

Not available.

Conclusion/Summary [Product] : Not available.**Respiratory or skin sensitization****Product/ingredient name****Result**

SECTION 11: Toxicological information

2,2-bis[4(2,3-epoksipropoksi)fenil]-propan	Mammal - species unspecified - skin <u>Result:</u> Sensitising
hydrocarbons, C9-unsaturated, polymerized	Mouse - skin OECD 429 <u>Result:</u> Sensitising
epoxy resin (MW 700-1200)	Mammal - species unspecified - skin <u>Result:</u> Sensitising

Skin

Conclusion/Summary [Product] : Not available.

Ingredient name

2,2-bis[4(2,3-epoksipropoksi)fenil]-propan
hydrocarbons, C9-unsaturated, polymerized
epoxy resin (MW 700-1200)

Conclusion/Summary

May cause an allergic skin reaction.
May cause an allergic skin reaction.
May cause an allergic skin reaction.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

xylene
2-methylpropan-1-ol

Result

STOT SE 3, H335 (Respiratory tract irritation)
STOT SE 3, H335 (Respiratory tract irritation)
STOT SE 3, H336 (Narcotic effects)

Specific target organ toxicity (repeated exposure)

Product/ingredient name

ethylbenzene

Result

STOT RE 2, H373 (hearing organs)

Aspiration hazard

Product/ingredient name

xylene
ethylbenzene

Result

ASPIRATION HAZARD - Category 1
ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

SECTION 11: Toxicological information

- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
 pain
 watering
 redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
- Ingestion** : Adverse symptoms may include the following:
 stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name

2,2-bis[4(2,3-epoksipropoksi)fenil]-propan

Result

Acute - LC50
 Fish - *pimephales promelas*
 3.1 mg/l [96 hours]

Acute - EC50
 Daphnia
 1.4 mg/l [48 hours]

Chronic - NOEC
 Fish
 0.3 mg/l [21 days]

xylene

Acute - LC50 - Marine water
 Crustaceans - Daggerblade grass shrimp - *Palaemonetes pugio*

SECTION 12: Ecological information

8500 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 18.4 mm; Weight: 0.077 g

13400 µg/l [96 hours]

Effect: Mortality

2-methylpropan-1-ol

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

4000 µg/l [21 days]

Effect: Reproduction

titanium dioxide

Acute - LC50 - Marine water

Fish - Mummichog - *Fundulus heteroclitus*

>1000000 µg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate

Age: <24 hours

3 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia pulex* - Neonate

Age: <24 hours

6.5 mg/l [48 hours]

Effect: Mortality

ethylbenzene

Acute - EC50

Daphnia

2.93 mg/l [48 hours]

Effect: Intoxication

Acute - LC50

Fish

4.2 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

7700 µg/l [96 hours]

Effect: Population

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,2-bis[4(2,3-epoksipropoksi)fenil]-propan	-	-	Not readily
xylene	-	-	Readily
benzyl alcohol	-	-	Readily
ethylbenzene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2,2-bis[4(2,3-epoksipropoksi)fenil]-propan	2.64 to 3.78	31	Low
hydrocarbons, C9-unsaturated, polymerized	3.627	-	Low
xylene	3.12	8.1 to 25.9	Low
2-methylpropan-1-ol	1	-	Low
benzyl alcohol	0.87	<100	Low
ethylbenzene	3.6	-	Low

12.4 Mobility in soil

Soil/water partition coefficient : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
2,2-bis[4(2,3-epoksipropoksi)fenil]-propan	No	N/A	No	No	No	N/A	No
Talc (Mg ₃ H ₂ (SiO ₃) ₄)	No	No	No	No	No	No	No
hydrocarbons, C9-unsaturated, polymerized	No	N/A	N/A	No	N/A	N/A	N/A
xylene	No	N/A	No	No	No	N/A	No
epoxy resin (MW 700-1200)	No	N/A	N/A	No	N/A	N/A	N/A
2-methylpropan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
titanium dioxide	No	No	No	No	No	No	No
benzyl alcohol	No	N/A	No	No	No	N/A	No
ethylbenzene	N/A	N/A	N/A	Yes	N/A	N/A	N/A

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : 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.

SECTION 13: Disposal considerations

Hazardous waste : Yes.

Waste list





Waste code	Waste code definition
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	Paint	Paint	Paint	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Hazard identification number** 30
Tunnel code (D/E)
ADR/RID: Viscous substance. Not goods of class 3, ref. 2.2.3.1.5 (only applicable to receptacles < 450 litre capacity).

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

IMDG : **Emergency schedules** F-E, S-E
IMDG: Viscous substance. Transport in accordance with 2.3.2.5 of the IMDG Code (only applicable to receptacles < 450 litre capacity).

14.6 Special precautions for user : **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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

Turkey Regulation No. 30105, KKDIK

Annex 14 - List of substances subject to authorization

Annex 14

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Ozone depleting substances

Not listed.

Regulation on the prevention of major industrial accidents and reduction of their effects

This product is controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

Danger criteria

Category
P5c

EU regulations

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

SECTION 15: Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 EUH statement = SEA-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to regulation SEA: RG.-10/12/2020-31330

Classification	Justification
Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	On basis of test data Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [SEA/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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SECTION 16: Other information

Version : 1

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