



MATERIAL SAFETY DATA SHEET

Artdeco Crystal Clear Epoxy Resin Hardener 500ml

Preparation date: 29.03.2019

Version: 1

Upgrade date: -

GBF No: GBF- LISANS-0075

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

1.1 Information about item

Commercial name:

Artdeco Crystal Clear Epoxy Resin Hardener 500ml

Artdeco Kristal şeffaf epoksi sertleştiricisi 500 ml

Item no:

LV-Y-054L-02

1.3 Company/Manufacturer

Manufacturer: Lisans Kırtasiye Ofis Gereçleri San. Ve Tic. A.Ş.
Address: Şerifali Mah. Emin Sk. No:26 34775 Y.Dudullu/ Ümraniye/ İstanbul
Telephone: +90 216 415 45 65
Faks: +90 216 420 78 05
Web Site: www.lisanskirtasiye.com

1.4 Informer of MSDS

Okan SIVAS osivas@lisanskirtasiye.com.tr

1.5 Emergency consultancy

Company emergency call: +90 216 415 45 65

Emergency call:112

National poison center:114

Fire brigade:110

2. COMPOSITION / INFORMATION ON INGREDIENTS

This product is a substance.

CAS No : Trade Secret

Component : Polyamine mixture

Additional information : > 65 %

CAS No : 100-51-6

Component : Benzyl Alcohol

Additional information : < 35 %

3. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C; Corrosive

R34: Causes burns.

Xn; Harmful



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R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
Xi; Sensitising
R43: May cause sensitisation by skin contact.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Labelling according to Regulation (EC) No 1272/2008

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

Hazard pictograms

GHS05 GHS07

Signal word C "Corrosive"

Hazard-determining components of labelling:

3-aminomethyl-3,5,5-trimethylcyclohexylamine Benzyl alcohol

Hazard statements

Harmful by inhalation, in contact with skin and if swallowed.

Causes burns.

May cause sensitisation by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Precautionary statements

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

Causes skin irritation.

Causes serious eye irritation. May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.



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4. FIRST AID MEASURES

Description of first aid measures

General advice

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation

Move person to fresh air; if effects occur, consult a physician

Skin Contact Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

Eye Contact Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

Ingestion No emergency medical treatment necessary

Most important symptoms and effects, both acute and delayed Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information

Indication of immediate medical attention and special treatment needed No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents

CO₂, powder or water spray. Fight larger fires with water spray.

For safety reasons unsuitable extinguishing agents

Water with full jet

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

Leak And Spill Procedure

Remove sources of ignition immediately. Ventilate area. Contain large spill. Using suitable protective equipment and non sparking tools scoop up material or absorb in suitable inert material such as sand or vermiculate. Dispose as a hazardous waste in suitable containers. Notify the appropriate authorities immediately.

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away

Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Prevent seepage into sewage system, workpits and cellars.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Clean the affected area carefully; suitable cleaners are:

Warm water

Dispose of the material collected according to regulations.



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7. HANDLING AND STORAGE

Handling Procedures

Keep out of reach of children. For industrial use only. Avoid ingestion, inhalation of vapours and contact with skin, eyes and clothing. Clean soiled clothing before reuse. Reduce exposure with suitable protective equipment. Precautions apply also to empty containers

Storage

Store in upright, tightly sealed, suitable containers in a cool, dry area away from all ignition sources.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

None established

Personal Protection

Eye/Face Protection

Use safety glasses (with side shields).

Skin Protection

Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection

Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Neoprene. Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Ingestion

Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.



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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Form (Atmosphere temperature)	Liquid
Color	Colorless
Odour	Ammoniaca

9.2 Important Health, Safety and Environment Information

pH(20°C)	Not available
Meting point	Not available
Boiling point	>250°C
Flash point	>160°C(closed Up)
Flammability (solid, gas)	Not available
Ignition temperature	380°C
Auto ignition temperature	Not available
Decomposition temperature	Not available
Below explosion limit	Not available
Danger of explosion	Product does not present an explosion hazard.
Vapour pressure	10.34 mmHg at 21 °C
Density (at 20°C)	0,98 g/cm ³
Solubility in water	Not miscible or difficult to mix
Dispersion multiplier n-oktanol/ water	Not available
Dynamic Viscosity	Not available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions. See Storage, Section 7.

10.3 Possibility of hazardous reactions

Polymerization will not occur by itself.

10.4 Conditions to Avoid

Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Reaction with carbon dioxide may form an amine carbamate. Smoke may be generated depending on vapor pressure of mixture. Product absorbs carbon dioxide from the air

10.5 In compatible materials

Avoid contact with oxidizing materials. Avoid contact with: Acids. Acrylates. Aldehydes. Halogenated hydrocarbons. Ketones. Nitrites. Avoid contact with metals such as: Brass. Bronze. Copper. Copper alloys. Avoid contact with absorbent materials such as: Ground corn cobs. Moist organic absorbents. Peat moss. Sawdust.

10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds. Ammonia. Ethylenediamine. Volatile amines. Hydrocarbons. Phenolics.



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11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity

LD/LC50 values relevant for classification:

100-51-6, Benzyl alcohol

Oral LD50 1040 mg/kg (mou)

1230 mg/kg (rat)

1040 mg/kg (rbt)

Dermal LD50 2000 mg/kg (rbt)

Inhalative LC50/4h >4.178 mg/l (rat)

2855-13-2, 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral LD50 1030 mg/kg (rat)

Dermal LD50 1840 mg/kg (rab)

Primary irritant effect:

On the skin: Caustic effect on skin and mucous membranes.

On the eye: Strong caustic effect.

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Sensitisation May cause sensitisation by skin contact

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic acute toxicity: - Notes: WGK: 2

benzyl alcohol - CAS: 100-51-6

Aquatic chronic toxicity:

Endpoint: EC50 - Species: Daphnia = 230 mg/l - Duration h: 48

Species: Algae = 700 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 460 mg/l - Duration h: 96

c) Bacteria toxicity: Endpoint: EC50 = 390 mg/l - Duration h: 24

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 110 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 23 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 50 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 3 mg/l - Duration h: 504

Persistence and degradability : None

benzyl alcohol - CAS: 100-51-6

Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

Biodegradability: Non-readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.

Bioaccumulative potential

benzyl alcohol - CAS: 100-51-6

Bioaccumulation: Bioaccumulative - Test: BCF - Bioconcentration factor 1.37 - Duration: N.A. - Notes:

N.A. 3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2 Bioaccumulation: Not

bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

Mobility in soil 3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None



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13. DISPOSAL INFORMATION

13.1 Product disposal Suggestion

Waste treatment methods

Recommendation For disposal, local regulations issued by the authorities must be observed. Dispose of liquid components at a suitable incineration plant. After curing, the product can be disposed of with household waste

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORTATION INFORMATION

UN-Number
ADR, IMDG, IATA : 2735
UN proper shipping name
ADR : 2735 AMINES, LIQUID, CORROSIVE
IMDG, IATA : AMINES, LIQUID, CORROSIVE,
Transport hazard class(es)
ADR, IMDG, IATA
Class : 8 (C7) Corrosive substances.
Label : 8
Packing group
ADR, IMDG, IATA : III
Environmental hazards
Marine pollutant! : NO
Special precautions for user : Warning: Corrosive substances

EMS Number : F-A,S-B
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : Not applicable.
Transport/Additional information
ADR
Tunnel restriction code : E



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15. REGULATORY INFORMATION

Chemical safety assessment! : A Chemical Safety Assessment has not been carried out
Water hazard class : Water hazard class 1 (Self-assessment): slightly hazardous for water.

16. OTHER INFORMATION

It is the user's responsibility to verify the accuracy and suitability of the above information for all possible uses, foreseen and unforeseen.

RID : Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR : Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO : International Civil Aviation Organization
ICAO-TI : Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR : Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG : International Maritime Code for Dangerous Goods
DOT : US Department of Transportation
IATA : International Air Transport Association
EINECS!! : European Inventory of Existing Commercial Chemical Substances
CAS : Chemical Abstracts Service (division of the American Chemical Society)
FPA : National Fire Protection Association (USA)
HMIS : Hazardous Materials Identification System (USA) LC50! ! : Lethal concentration, 50 percent
D50 : Lethal dose, 50 percent

16.2.1 Contact info

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