

**Epoxy glue Part A---ES-501-RE**

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**1. IDENTIFICATION OF THE CHEMICAL AND SUPPLIER****1.1 Product identifier**

Product Name : Epoxy glue Part A---ES-501-RE

**1.2 Manufacturer or supplier's details**

Company : ABRO INDUSTRIES, INC.  
Office Address : 13580 Blackthorn Court, South Bend, IN 46628, USA, 311200  
Telephone number : +574-232-8289  
Fax number : +574-232-8289  
EMERGENCY 24-HR TELEPHONE : +Chemtrec: US/Canada 1-800-424-9300  
+International +1-703-527-3887

**1.3 Recommended use of the chemical and restrictions on use**

Recommended Use : Bonding and sealing  
Advised Against : At this moment in time we do not have information on use restrictions. They will be included in this document when available.

**2. HAZARDS IDENTIFICATION****2.1 GHS Classification**

Aquatic Chronic : Cate. Chronic 2  
Eye Irrit. : Cate.2A  
Skin Irrit. : Cate.2  
Skin Sens. : Cate.1

**2.2 GHS Labelling**

Hazard pictograms :

Signal Word : Warning

**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.

**Precautionary Stat****Prevention**

P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 : Wash thoroughly after handling.  
P272 : Contaminated work clothing should not be allowed out of the workplace.  
P280 : Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

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- P302+P352 : IF ON SKIN: Wash with plenty of soap and 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.
- P321 : Specific treatment (see the instructions on this label).
- P332+P313 : If skin irritation occurs: Get medical advice/attention.
- P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 : If eye irritation persists: Get medical advice/attention.
- P362 : Take off contaminated clothing and wash before reuse.
- P363 : Wash contaminated clothing before reuse.

### Storage

- Instruction : Not applicable

### Disposal

- P501 : Dispose of contents/ container in accordance with local/regional/ national/intern

## 2.3 Hazard description

### Physical and chemical hazards

No information available

### Health hazards

- Inhaled : Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
- Ingestion : Accidental ingestion of the product may be harmful to the health of the individual.
- Skin Contact : Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
- Eye : This product may cause temporary discomfort following direct contact with the eye.

### Environmental hazards

- Environmental hazards : Please refer to Section 12 of the SDS.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance/mixture

Mixture

### 3.2 Components

Component	CAS-No.	Concentration(Wt%)	Classification
Epoxy Resin	25068-38-6	40~70	Eye Irrit. 2 H319; Skin Sens. 1 H317; Skin Irrit. 2 H315; Aquatic Chronic. 2 H411

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

### 4.1 Description of necessary first aid measures

- General advice : Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
- Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
- Skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

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- Ingestion : DO NOT induce vomiting.  
Never give anything by mouth to an unconscious person.  
Call a physician or Poison Control Center immediately.
- Inhalation : Move victim into fresh air. If breathing is difficult, give oxygen.  
Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance.  
If not breathing, give artificial respiration and consult a physician immediately.

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

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. May cause an allergic skin reaction, serious eye irritation, damages to organs through prolonged or repeated exposure. Ingestion is likely to be harmful or have adverse effects.

## 4.3 Protection of first-aiders

First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Ensure that medical personnel are aware of the substance involved.

Take precautions to protect themselves and prevent spread of contamination.

## 4.4 Notes to physician

Treat symptomatically and supportively.

Symptoms may be delayed.

# 5. FIREFIGHTING MEASURES

## 5.1 Extinguishing media

- Suitable : Use extinguishing agent suitable for type of surrounding fire.  
extinguishing media
- Unsuitable : There is no restriction on the type of extinguisher which may be used.  
extinguishing media

## 5.2 Specific hazards arising from the substance or mixture

Development of hazardous combustion gases or vapor possible in the event of fire.  
May expansion or decompose explosively when heated or involved in fire.

## 5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.  
Fight fire from a safe distance, with adequate cover.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

# 6. ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.  
Follow safe handling advice and personal protective equipment recommendations.  
Avoid contact with skin, eyes and inhalation of vapors.  
Remove all sources of ignition.  
Use personal protection recommended in Section 8.

## 6.2 Environmental precautions

Discharge into the environment must be avoided.  
Prevent further leakage or spillage if safe to do so.  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

## 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are appl

## 6.4 Reference to other sections

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See Section 7, Ssection 8, Section 13, Senction 15 for more information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Handling is performed in a well ventilated place.  
Wear suitable protective equipment.  
Avoid contact with skin and eyes.  
Keep away from heat/sparks/open flames/ hot surfaces.  
Take care to prevent spills, waste and minimize release to the environment.  
Persons susceptible to allergic reactions should not handle this product.

### 7.2 Precautions for storage

Keep containers tightly closed.  
Keep containers in a dry, cool and well-ventilated place.  
Keep away from heat/sparks/open flames/hot surfaces.  
Store away from incompatible materials and foodstuff containers.

### 7.3 Materials to avoid

Strong oxidizing agents, Organic peroxides, Acids, Foodstuffs, Explosives, Hot, Heat.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure limit values

No further relevant information available.

#### Biological limit values

Biological limit values : No data available

#### Monitoring methods

EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.  
GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard).

### 8.2 Engineering controls

Ensure adequate ventilation, especially in confined areas.  
Ensure that eyewash stations and safety showers are close to the workstation location.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Set up emergency exit and necessary risk-elimination area.

### 8.3 Personal protection equipment

Personal protective equipment

Respiratory protectio: If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

Hand protection : Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.

Eye protection : Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).

Skin and body protect: Wear fire/ flame resistant/retardant clothing and antistatic boots.  
Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

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Hygienic measures : Ensure that eye flushing systems and safety showers are located close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before reuse.  
Do not inhale gases / fumes / aerosols.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Liquid  
Odor : Slightly  
Odor threshold : No information available  
pH : Not applicable  
Melting point/  
freezing point : No information available  
Initial boiling point : >35  
and boiling range (°C  
)  
Flash point (°C) : ≥95°C (Closed cup)  
Evaporation rate : No information available  
Flammability : Not flammable  
Upper explosive  
limits[% (v/v)] : No information available  
Lower explosive  
limits[% (v/v)] : No information available  
Vapor pressure : No information available  
Relative vapour  
density (Air=1) : No information available  
Relative density ( : No information available  
Water=1)  
Solubility (mg/L) : Insoluble  
n-octanol/water  
partition coefficient : No information available  
Dynamic viscosity : Not applicable  
Particle : No information available  
characteristics  
Explosive properties : Non explosive  
Oxidizing properties : Non oxidizing

**10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous : No information available.  
reactions  
Possibility of hazardous : Incompatible materials, heat, flame and spark.  
reactions  
Incompatible materials : No information available.  
Hazardous decomposition : No date available.  
products

**11. TOXICOLOGICAL INFORMATION****11.1 Acute toxicity**

No further relevant information available.

**11.2 Carcinogenicity**

No further relevant information available.

**11.3 Others**

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Skin corrosion/irritation	:	No further information available
Serious eye damage/ irritation	:	No further information available
Skin sensitization	:	No further information available
Respiratory sensitization	:	No further information available
Reproductive toxicity	:	No further information available
STOT-single exposure	:	No further information available
STOT-repeated exposure	:	No further information available
Aspiration hazard	:	No further information available
Germ cell mutagenicity	:	No further information available
Reproductive toxicity( additional)	:	No further information available

## 12. ECOLOGICAL INFORMATION

### 12.1 Acute aquatic toxicity

No further relevant information available.

### 12.2 Chronic aquatic toxicity

No further relevant information available.

### 12.3 Persistence and degradability

No further relevant information available.

### 12.4 Bioaccumulative potential

No further relevant information available.

### 12.5 Mobility in soil

No further relevant information available.

### 12.6 Results of PBT and vPvB assessment

No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packag: Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not pierce or burn, even after use.  
If not otherwise specified: Dispose of as unused product.

Disposal recommend: Refer to section waste chemicals and contaminated packaging.

## 14. TRANSPORT INFORMATION

### 14.1 UNRTDG:

UN No. : N/A

Class : N/A

Pakaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

### 14.2 Marine Transport IMDG-Code:

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UN No. : N/A  
Class : N/A  
Pakaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

**14.3 Road Transport ADR:**

UN No. : N/A  
Class : N/A  
Pakaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

**14.4 Air Transport IATA-DGR:**

UN No. : N/A  
Class : N/A  
Pakaging group : N/A

Marine pollutant : N/A

Shipping Name : N/A

**15. REGULATORY INFORMATION**

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

**16. OTHER INFORMATION****16.1 National Fire Protection Association (U.S.A.)**

Health : 1  
Flammability : 1  
Instability/Reactivity : 1  
Special : N/A

**16.2 Reference**

- [1] IPCS: The International Chemical Safety Cards (ICSC) ,website: <http://www.ilo.org/dyn/icsc/showcard.home>
- [2] IARC, website: <http://www.iarc.fr/>
- [3] OECD: The Global Portal to Information on Chemical Substances, website:  
[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en).
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

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[8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>

[9] European Chemicals Agency, <http://echa.europa.eu/>

### 16.3 Full text of other abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road;

IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;

IMO: International Maritime Organization; ISHL: Industrial Safety and Health Law (Japan);

OSHA: United States Department of Labor: Occupational Safety and Health Administration;

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail;

UNRTDG: United Nations Recommendations on the Transport of Dangerous Goods;

MARPOL: International Convention for the Prevention of Pollution from Ships;

AICS: Australian Inventory of Chemical Substances; ACGIH: American Conference of Governmental Industrial Hygienists;

AIHA: American Industrial Hygiene Association; O: International Organisation for Standardization;

ASTM: American Society for the Testing of Materials; KECI: Korea Existing Chemicals Inventory;

ATE: Acute toxicity estimate; LC50: Lethal Concentration to 50 %;

CMR: Carcinogen, Mutagen or Reproductive Toxicant; LD50: Lethal Dose to 50%(Median Lethal Dose);

CMR: Carcinogen, Mutagen or Reproductive Toxicant; EC50: Effective Concentration 50%

DSL: Domestic Substances List (Canada); IC50: Half maximal inhibitory concentration;

ECx: Concentration associated with x% response; PICCS: Philippines Inventory of Chemicals and Chemical Substances;

ELx: Loading rate associated with x% response; OECD: Organization for Economic Co-operation and Development;

EmS: Emergency Schedule; n.o.s.: Not Otherwise Specified;

ENCs: Existing and New Chemical Substances (Japan); NO(A)EC: No Observed (Adverse) Effect Concentration;

ErCx: Concentration associated with x% growth rate response; NO(A)EL: No Observed (Adverse) Effect Level;

GLP: Good Laboratory Practice; NZIoC: New Zealand Inventory of Chemicals;

IARC: International Agency for Research on Cancer; OPPTS: Office of Chemical Safety and Pollution Prevention;

IATA: International Air Transport Association; PBT: Persistent, Bioaccumulative and Toxic substance;

ICAO: International Civil Aviation Organization; (Q)SAR: (Quantitative) Structure Activity Relationship;

IECSC: Inventory of Existing Chemical Substances in China; SADT: Self-Accelerating Decomposition Temperature;

IMDG: International Maritime Dangerous Goods; STEL: Short Term Exposure Limit;

NFPA: National Fire Protection Association; TCSI: Taiwan Chemical Substance Inventory;

UN: United Nations; TSCA: Toxic Substances Control Act (United States);

TWA: Time-Weighted-Average; vPvB: Very Persistent and Very Bioaccumulative.

PC-TWA: Permissible concentration-Time Weighted Average; PC-STEL: Permissible concentration-Short Term Exposure Limit

### 16.4 Disclaimer



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This Safety Data Sheet (SDS) was prepared according to UN GHS (the 7th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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