



Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

1 Identification

- · Product identifier
- · Trade name: 43230 (Hardman Epoweld 13230 Part A)
- · Relevant identified uses of the substance or mixture. Adhesive
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Royal Adhesives And Sealants, LLC

2001 W. Washington Street

South Bend IN 46628-2023

Information Phone Number: 574-246-5000

- · Information department: Environment protection department.
- · Emergency telephone number: ChemTrec: UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



Skin Irrit. 2 H315 Causes skin irritation.

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

Eye Irrit. 2B H320 Causes eye irritation.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard statements

Causes skin and eye irritation.

May cause an allergic skin reaction.

· Precautionary statements

If medical advice is needed, have product container or label at hand.

 ${\it Keep \ out \ of \ reach \ of \ children.}$

Read label before use.

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

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

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

Specific treatment (see on this label).

Take off contaminated clothing and wash before reuse.

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

(Contd. on page 2)

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 1)

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 2Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = 21 Fire = 1

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture
- · Dangerous components:

and Non-Dangerous Components:

25068-38-6	Bisphenol A Epoxy Resin	50-100%
1332-58-7	Kaolin	10-25%
	Amorphous Fumed Silica	≤2.5%

4 First-aid measures

- · Description of first aid measures
- · After inhalation:

Remove to fresh air. If not breathing, administer artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eve contact:

Rinse opened eye for 20 minutes under running water. If eye becomes irritated, obtain medical treatment.

- · After swallowing: Do not induce vomiting. Obtain medical advice.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

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

Use fire fighting measures that suit the environment.

(Contd. on page 3)

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 2)

- · Advice for firefighters
- · Protective equipment: Protective clothing and respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: 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).

Dispose of contaminated material as waste in accordance with federal state and local regulations.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location away from direct heat.
- · Information about storage in one common storage facility: Keep away from open flames and high temperatures.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

1332-58-7 Kaolin (10-25%)

PEL Long-term value: 15* 5** mg/m³
*total dust **respirable fraction

REL Long-term value: 10* 5** mg/m³
*total dust **respirable fraction

TLV Long term value: 2* mg/m³

TLV Long-term value: 2* mg/m³ E; as respirable fraction

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment (see listings below)
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

(Contd. on page 4)

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 3)

Avoid contact with the eyes and skin.

· Breathing equipment:

Not required.

In the absence of adequate ventilation, use NIOSH-certified respiratory protection for particulate matter/organic vapor. Comply with OSHA 29 CFR 1910.134.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Nitrile rubber, NBR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Eye protection:

Safety glasses with side shields.



Tightly sealed goggles

· Body protection: Protective work clothing

O DI	, ,		
U Physica	ande	nomical	properties
			uruberues
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- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid
Color: Off White
Odor: Characteristic

· Change in condition

Melting point:Undetermined.Boiling point:Undetermined.

• Flash point: $> 104 \, ^{\circ}C \, (> 219 \, ^{\circ}F)$

· Auto igniting: Product is not selfigniting.

• Danger of explosion: Product does not present an explosion hazard.

• Specific gravity at 20 °C (68 °F): 1.35 g/cm³ (11.266 lbs/gal)

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Solvent content:

Organic solvents: 0.0 %

VOC (Per EPA 24) 1.303 GMS/L

Solids content: 100.0 %

(Contd. on page 5)

USA ·

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 4)

· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions Strong oxidizing agents.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: Carbon Monoxide, Carbon Dioxide, Aldehydes, acids.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Skin irritant.
- · on the eye: Irritating effect.
- · Sensitization: Skin Contact Sensitization possible through skin contact.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes: At present there are no ecotoxicological assessments.
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

USA ·

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 5)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Disposal must be made according Federal, State and local regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation:

Disposal must be made according to official regulations.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information				
· UN-Number · DOT, ADR, IMDG, IATA	UN3082			
· UN proper shipping name · DOT · ADR	Environmentally hazardous substances, liquid, n.o.s. 3082 Environmentally hazardous substances, liquid, n.o.s.			
· IMDG	(Bisphenol A Epoxy Resin) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Epoxy Resin), MARINE POLLUTANT			
· IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Epoxy Resin)			

- · Transport hazard class(es)
- · DOT, ADR, IMDG, IATA



· Class	9 Miscellaneous aangerous substances and articles.
· Lahel	9

· Packing group

· DOT, ADR, IMDG, IATA

• Environmental hazards: Product contains environmentally hazardous substances: Bisphenol

A Epoxy Resin

· Marine pollutant: Yes

Symbol (fish and tree)
Special marking (ADR):
Special marking (IATA):
Symbol (fish and tree)
Symbol (fish and tree)

· Special precautions for user Warning: Miscellaneous dangerous substances and articles

Danger code (Kemler): 90EMS Number: F-A,S-F

 $\cdot \textit{Transport in bulk according to Annex II of}$

MARPOL73/78 and the IBC Code Not applicable.

• Transport/Additional information: Not dangerous according to the above specifications.

Epoxy Resin - This product is not considered to be DOT hazardous when transported via any mode within the United States. However, if this product is transported to or within the European Community it

(Contd. on page 7)

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 6) is considered to be an Environmentally Hazardous Substance, Liquid Epoxy Resin, UN3082, Class 9. $\cdot DOT$ *Special marking with the symbol (fish and tree).* · Remarks: · UN "Model Regulation": UN3082, Environmentally hazardous substances, liquid, n.o.s. (Bisphenol A Epoxy Resin), 9, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity:

None of the ingredients is listed.

· (DSL) Canada Dosmestic Substance List

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

- · Cancerogenity categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

1332-58-7 Kaolin

A4

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · National regulations:
- · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from (Contd. on page 8)

Printing Date 07/03/2014 Revision Number 1 Revision Date 07/03/2014

Trade name: 43230 (Hardman Epoweld 13230 Part A)

(Contd. of page 7)

the use or reliance on the information set forth in the MSDS.

- · Department issuing MSDS: Environment protection department.
- · Creation Date: 10/08/2009
- · Date of preparation / last revision 07/03/2014 / -
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

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

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA) Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

- USA