

SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

EPONEXTM Resin 1510

Section 1. Product and company identification

GHS product identifier : EPONEXTM Resin 1510

MSDS Number : K1259 Product type : Epoxy Resin

Manufacturer/Supplier/Impor : Hexion Inc.

ter 180 East Broad Street

Columbus, Ohio 43215 USA

Contact person : 4information@hexion.com

Telephone : For additional health and safety or regulatory information, call

1 888 443 9466.

Emergency telephone number : For Emergency Medical Assistance

Call Health & Safety Information Services

1-866-303-6949

For Emergency Transportation Information CHEMTREC US Domestic (800) 424-9300 CHEMTREC International (703) 527-3887 CANUTEC CA Domestic (613) 996-6666

Section 2. Hazards identification

Classification of the substance or

mixture

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B

SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms :

(!)

Signal word : Warning

Hazard statements : H320 Causes eye irritation.

H317 May cause an allergic skin reaction.

Precautionary statements

General : Not applicable.

Prevention : Wear protective gloves.

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Wear eye or face protection.

Avoid breathing vapor.

Wash hands thoroughly after handling.

Contaminated work clothing should not be allowed out of the

workplace.

Response : IF ON SKIN:

Wash with plenty of soap and water. Wash contaminated clothing before reuse.

If skin irritation or rash occurs:

Get medical attention.

IF IN EYES:

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local,

regional, national and international regulations.

Other hazards which do not result

in classification

None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% by weight	CAS number
Cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with	100	30583-72-3
2-(chloromethyl)oxirane		

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 and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

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Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the

upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get

medical attention.

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Inhalation : Remove victim to fresh air and keep at rest in a position comfortable

for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position

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Skin contact

and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

Protection of first aid personnel

: No specific treatment.

No action shall be taken involving any personal risk or without suitable training. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media

- Use an extinguishing agent suitable for the surrounding fire.
- : None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

- In a fire or if heated, a pressure increase will occur and the container may burst.
- Decomposition products may include the following materials: carbon monoxide carbon dioxide aldehydes

Special protective actions for firefighters 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.

Special protective equipment for fire-fighters

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

Section 6. Accidental release measures

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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 spilled material. Avoid breathing vapor 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".

Environmental precautions

Avoid dispersal of spilled 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).

Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13 of SDS). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see section 8 of SDS). 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 ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

Conditions for safe storage,

: Store in accordance with local regulations. Store in original container

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including any incompatibilities

protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

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.

Individual protection measures

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 with an approved standard 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.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be

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noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves

cannot be accurately estimated.

Body protection : 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.Other skin protectionAppropriate 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: Use a properly fitted, air-purifying or air-fed respirator complying with

an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the

selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Viscous liquid.
Color : Colorless/Colourless

Odor : Odorless/Odourless
Odor threshold : Not available
pH : Not available
Melting point/ Freezing point : 10 °C (50.00 °F)

Boiling point : Not available

Flash point : Pensky-Martens Closed Cup: 115 °C (239.00 °F) (ASTM D 93)

Burning time: Not availableBurning rate: Not availableEvaporation rate: Not availableFlammability (solid, gas): Not available

Lower and upper explosive : Lower: Not available (flammable) limits : Upper: Not available

Vapor pressure : Not available Vapor density : 1 [Air = 1]

Relative density : Not available **Density** : 1,140 kg/m3

Solubility: Not availableSolubility in water: Negligible

Partition coefficient: n- : Not available

octanol/water

Auto-ignition temperature : Not available

Decomposition temperature : Not available **SADT** : Not available

Viscosity : **Dynamic:** 1.8 - 2.5 Pa·s @ 25 °C (77.00 °F)

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Kinematic: Not available

Other information

No additional information.

Section 10. Stability and reactivity

Reactivity : Stable under normal conditions.

Chemical stability : The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will

not occur.

Conditions to avoid : Strong oxidizer, Caustic soda (sodium hydroxide) can induce vigorous

polymerisation at temperatures around 200 °C.

Incompatible materials : strong oxidizing agents,

sodium hydroxide,

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition

products should not be produced.

Other hazards Reacts with considerable heat release with some curing agents.

Polymerises exothermically with amines, mercaptans and Lewis acids

at ambient temperature and above.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Conclusion/Summary : Not available

Irritation/Corrosion

Conclusion/Summary

Skin:Not availableeyes:Not availableRespiratory:Not available

Sensitization

Conclusion/Summary

Skin:Not availableRespiratory:Not available

Mutagenicity

Conclusion/Summary : Not available

Carcinogenicity

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Conclusion/Summary : Not available

Reproductive toxicity

Conclusion/Summary : Not available

Teratogenicity

Conclusion/Summary : Not available

Specific target organ toxicity (single exposure)

Not available

Specific target organ toxicity (repeated exposure)

Not available

Aspiration hazard

Not available

Information on the likely routes of :

exposure

Not available

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : May be irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Delayed and immediate effects and also 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

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Conclusion/Summary : Not available

General : Once sensitized, a severe allergic reaction may occur when

subsequently exposed to very low levels.

CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available

Section 12. Ecological information

Toxicity

Conclusion/Summary : Not available

Persistence/degradability

Conclusion/Summary : Not available

Mobility in soil

Soil/water partition coefficient

(KOC)

: Not available

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 14. Transport information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

International transport regulations

Regulatory	UN/NA	Proper shipping name	Classes/*PG	Reportable
information	number			Quantity (RQ)

CFR Non-regulated

TDG Non-regulated

IMO/IMDG Non-regulated

IATA (Cargo) Non-regulated

*PG: Packing group

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.'

Section 15. Regulatory information

United States

U.S. Federal regulations

: United States - TSCA 12(b) - Chemical export notification: None required.

United States - TSCA 5(a)2 - Final significant new use rules: Not listed United States - TSCA 5(a)2 - Proposed significant new use rules: Not

listed

United States - TSCA 5(e) - Substances consent order: Not listed

California Prop. 65:

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer., WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Oxirane, 2,2'-	No.	Yes.	No.	No.
[oxybis(methylene)]bis-				
Oxirane, 2-(chloromethyl)-	Yes.	Yes.	9 μg/day	No.

United States inventory (TSCA:

All components are listed or exempted.

8b)

Canada

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WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : None required.

CEPA Toxic substances : None required.

International regulations

International lists : Australia inventory (AICS): All components are listed or exempted.

Canada inventory: All components are listed or exempted. **Japan inventory:** All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): All components are listed or exempted. United States inventory (TSCA 8b): All components are listed or exempted.

Taiwan inventory (CSNN): All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System III (U.S.A.):

Health	*	2
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

Full text of abbreviated H : Not applicable.

statements

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History

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Prepared by : Product Safety Stewardship Key to abbreviations : ATE = Acute Toxicity Estimate

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BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

 $LogPow = logarithm\ of\ the\ octanol/water\ partition\ coefficient$

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by

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Rail

UN = United Nations Not available

Notice to reader

References

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