

## Section 1. Identification

### PRODUCT IDENTIFIER

**Trade Name** : V-Epoxy-R - Part B

**Relevant identifies uses of the substance or mixture** : Curing Agent

### DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET




**Supplier/Manufacturer** : The D.S. Brown Company  
300 East Cherry Street  
North Baltimore, Ohio 45872  
419-257-3561

**Information Department** : Environment protection department.

**Emergency Telephone Number:** ChemTrec: Day or Night within USA and Canada: 1-800-424-9300  
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)



## Section 2. Hazard(s) Identification

**Classification of the Substance or Mixture** :

-  GHS08 Health hazard  
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
-  GHS05 Corrosion  
Skin Corr. 1C H314 Causes severe skin burns and eye damage.  
Eye Dam. 1 H318 Causes serious eye damage.
-  GHS07  
Skin Sens. 1 H317 May cause an allergic skin reaction.

### LABEL ELEMENTS

**GHS label elements** : The product is classified and labeled according to the Globally Harmonized System (GHS)

**Hazard Pictograms** :  GHS05  GHS08

**Signal Word** : Danger

**Hazard Statements** : Causes severe skin burns and eye damage.  
May cause allergy and asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

**Precautionary Statements** : Do not breathe dusts or mist.  
[In case of inadequate ventilation] wear respiratory protection.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.

## Section 2. Hazard(s) Identification *cont'd.*

Contaminated work clothing must not be allowed out of the workplace.  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Immediately call POISON CENTER/doctor.  
 Specific treatment (see on this label).  
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
**IF INHALED:** Remove person to fresh air and keep comfortable for breathing  
 Wash contaminated clothing before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Additional Information** : 14.6% of the mixture consists of component(s) of unknown toxicity

**Classification System** : **NFPA ratings (scale 0 - 4)**  
 Health = 2 Fire = 1 Reactivity = 0

**HMIS-ratings (scale 0 - 4)**  
 Health = 2 Fire = 1 Physical Hazard = 0

**Results of PBT and vPvB Assessment** : **PBT:** *Not applicable.*  
**vPvB:** *Not applicable.*

## Section 3. Composition/Information on Ingredients

**Chemical Characterization** : Mixtures

**Description** : Mixture

**Hazardous Components** : See list below

Chemical Name	CAS Number	Wt %
Amidoamine		25-50%
Polyamide Resin	68541-13-9	2.5-10%
Magnesite	546-93-0	2.5-10%
Bis (Isopropyl) Naphthalene	38640-62-9	2.5-10%
2,4 divinylphenol	61788-44-1	2.5-10%
3,6,9-triazaundecamethylenediamine	112-57-2	2.5-10%
2-piperazin-1-ylethylamine	140-31-8	≤0.5%
Carbon black	1333-86-4	≤0.1%

## Section 4. First Aid Measures

### DESCRIPTION OF FIRST AID MEASURES

- After Inhalation** : Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- After Skin Contact** : Immediately wash with water and soap and rinse thoroughly.  
If skin becomes irritated seek medical attention.
- After Eye Contact** : Rinse opened eye for 20 minutes under running water. Call a doctor immediately.
- After Swallowing** : Rinse out mouth with water. Drink 1-2 glasses of water but DO NOT induce vomiting.  
Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical treatment.

### 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.

## Section 5. Fire-Fighting Measures

### EXTINGUISHING MEDIA

- Suitable Extinguishing Agents** : CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire-fighting measures that suit the environment.
- Special Hazards Arising from the Substance or Mixture** : No further relevant information available.
- Advice for Firefighters** : Use water spray to cool fire exposed containers. Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
- Protective Equipment** : Protective clothing and respiratory protective device.

## Section 6. Accidental Release Measures

- Personal Precautions, Protective Equipment and Emergency Procedures** : Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
- Environmental Precautions** : Do not allow to enter sewers/surface or ground water.
- Methods and Materials 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.

## Section 6. Accidental Release Measures *cont'd.*

**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.

**Protective Action Criteria for Chemicals** :

### PAC-1

Chemical Name	CAS Number	Wt
Magnesite	546-93-0	45 mg/m3
Bis (Isopropyl) Naphthalene	38640-62-9	5.6 mg/m3
3,6,9-triazaundecamethylenediamine	112-57-2	15 mg/m3
Synthetic Amorphous Silica	67762-90-7	120 mg/m3
2-piperazin-1-ylethylamine	140-31-8	6.4 mg/m3

### PAC-2

Chemical Name	CAS Number	Wt
Magnesite	546-93-0	260 mg/m3
Bis (Isopropyl) Naphthalene	38640-62-9	61 mg/m3
3,6,9-triazaundecamethylenediamine	112-57-2	130 mg/m3
Synthetic Amorphous Silica	67762-90-7	1,300 mg/m3
2-piperazin-1-ylethylamine	140-31-8	71 mg/m3

### PAC-3

Chemical Name	CAS Number	Wt
Magnesite	546-93-0	1,600 mg/m3
Bis (Isopropyl) Naphthalene	38640-62-9	370 mg/m3
3,6,9-triazaundecamethylenediamine	112-57-2	790 mg/m3
Synthetic Amorphous Silica	67762-90-7	7,900 mg/m3
2-piperazin-1-ylethylamine	140-31-8	420 mg/m3

## Section 7. Handling and Storage

### HANDLING

**Precautions for Safe Handling** : Open and handle receptacle with care.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

**Information About Protection Against Explosions and Fires** : No special measures required.

## Section 7. Handling and Storage *cont'd.*

### STORAGE

- Information for Safe Handling** : **Storerooms and receptacles:** Store in a cool location away from direct heat.  
**One common storage facility:** Keep away from oxidizing agents.  
**Further information:** Keep receptacle tightly sealed.
- Specific End Use(s)** : No further relevant information available.

## Section 8. Exposure Controls/Personal Protection

**Additional Information About Design of Technical Systems** : No further data.


**Components with Limit Values that Require Monitoring at the Workplace** : The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
 At this time, the other constituents have no known exposure limits.

<b>546-93-0</b>	<b>Magnesite</b>
PEL	Long-term value: 15* 5* mg/m <sup>3</sup> (*Total dust **Respirable fraction)
REL	Long-term value: 10* 5* mg/m <sup>3</sup> (*Total dust **Respirable fraction)
TLV	TLV withdrawn
<b>112-57-2</b>	<b>3,6,9-triazaundecamethylenediamine</b>
WEEL	Long-term value: 5 mg/m <sup>3</sup> Skin; DSEN
<b>1333-86-4</b>	<b>Carbon black</b>
PEL	Long-term value: 3.5 mg/m <sup>3</sup>
REL	Long-term value: 3.5* mg/m <sup>3</sup> (*0.1 in presence of PAHs; See Pocket Guide Apps. A+C)
TLV	Long-term value: 3* mg/m <sup>3</sup> (inhalable fraction)


**Additional Information** : The lists that were valid during the creation were used as basis.

### EXPOSURE CONTROLS

#### Personal Protection 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.
- Breathing Equipment** : Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- 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.

## Section 8. Exposure Controls/Personal Protection *cont'd.*

<b>Penetration Time of Glove Material</b>	: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
<b>Eye Protection</b>	: Tightly sealed goggles. Use full face shield over protective eye wear when there is a risk of a splash. 
<b>Body Protection</b>	: Protective work clothing.

## Section 9. Physical and Chemical Properties

<b>Appearance</b>	
<b>Form</b>	: Liquid
<b>Color</b>	: Black
<b>Odor</b>	: Characteristic
<b>Odor Threshold</b>	: Not determined.
<b>pH Value</b>	: Not determined.
<b>Change in Condition</b>	
<b>Melting Point</b>	: Undetermined
<b>Boiling Point</b>	: Undetermined
<b>Flash Point</b>	: >100 °C (>212 °F)
<b>Flammability (Solid, Gaseous)</b>	: Not applicable.
<b>Decomposition Temperature</b>	: Not applicable.
<b>Auto Ignition</b>	: Product is not self-igniting.
<b>Danger of Explosion</b>	: Product does not present an explosion hazard.
<b>Flammable Limits</b>	
<b>Lower</b>	: Not determined
<b>Upper</b>	: Not determined
<b>Vapor Pressure</b>	: Not determined
<b>Specific Gravity at 20 °C (68 °F)</b>	: 1.28 g/cm <sup>3</sup> (10.682 lbs/gal)
<b>Relative Density</b>	: Not determined
<b>Vapor Density</b>	: Not determined
<b>Evaporation Rate</b>	: Not determined
<b>Solubility in/Miscibility with Water</b>	: Not miscible or difficult to mix.
<b>Partition Coefficient (n-octanol/water)</b>	: Not determined

## Section 9. Physical and Chemical Properties *cont'd.*

### Viscosity

Dynamic : Not determined  
Kinematic : Not determined

### Solvent Content

Organic Solvents : 0.0%  
Solids Content : Not available

Other Information : No further relevant information available.

## Section 10. Stability and Reactivity

Reactivity : No further relevant information available.

### CHEMICAL STABILITY

Thermal Decomposition/  
Conditions to be Avoided : No decomposition if used according to specifications.

Possibility of Hazardous  
Reactions : No further information is available.

Conditions to Avoid : Exposure to high temperatures.

Incompatible Materials : Reacts with oxidizing agents, reducing agents.

Hazardous Decomposition  
Products : Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Ammonia

## Section 11. Toxicological Information

Acute Toxicity : **LD/LC50 values that are relevant for classification:**  
**112-57-2-3,6,9-triazaundecamethylenediamine**  
Dermal, LD50, 660 mg/kg (rabbit)

Primary Irritant Effect : **On the skin:** Strong caustic effect on skin and mucous membranes.  
**On the eye:** Causes serious eye damage

Sensitization : **Skin contact:** Sensitization possible through skin contact.

Additional Toxicological  
Information: : The product shows the following dangers according to internally approved  
calculation methods for preparations: Irritant.

Carcinogenic Categories	Components
IARC (International Agency for Research on Cancer)	14807-96-6 Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> ) <sub>3</sub> ; 1333-86-4 Carbon black 2B
NTP (National Toxicology Program)	None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration)	None of the ingredients are listed.

## Section 12. Ecological Information

**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.

## Section 13. Disposal Considerations

**Waste Treatment Methods Recommendation** : Must be specially treated adhering to official regulations.


**Uncleaned Packagings Recommendation** : Disposal must be made according to official regulations.

## Section 14. Transport Information

**UN-Number** : DOT, IMDG, IATA: UN1760

**UN Proper Shipping Name** : **DOT:** Corrosive liquids, N.O.S. (Amidoamine, Teraethylenepentamine)  
**IMDG:** Corrosive liquid, N.O.S. (Amidoamine, Tetraethylenepentamine),  
Marine Pollutant  
**IATA:** Corrosive liquid, N.O.S. (Amidoamine, Tetraethylenepentamine),

**Transport Hazard Class(es)** : **DOT, IMDG:**   **Class:** 8 Corrosive substances.  
**Label:** 8

**IATA:**  **Class:** 8 Corrosive substances.  
**Label:** 8

**Packing Group** : DOT, IMDG, IATA: III


**Environmental Hazards** : Product contains environmentally hazardous substances: Bis (Isopropyl) Naphthalene)

**Marine Pollutant** : Yes (DOT) 

**Special Marking (ADR)** : 



## Section 14. Transport Information *cont'd.*

Special Precautions for User	: <b>Warning:</b> Corrosive substances
Danger code (Kemler)	: 80
EMS Number	: F-A, S-B
Segregation Groups	: Alkalis
Stowage Category	: A
Stowage Code	: SW2 Clear of living quarters.
Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code	: Not applicable
Transport/Additional Information	: DOT Remarks: 
UN "Model Regulation"	: UN 1760 corrosive liquids, N.O.S. (Amidoamine, Tetraethylenepentamine), 8, III, environmentally hazardous

## Section 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 are listed.
Section 313 (specific toxic chemical listings)	: None of the ingredients are listed
TSCA (Toxic Substance 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 are listed.
Chemicals Known to Cause Reproductive Toxicity for Females	: None of the ingredients are listed.
Chemicals Known to Cause Reproductive Toxicity for Males	: None of the ingredients are listed.
Chemicals Known to Cause Developmental Toxicity	: None of the ingredients are listed.
(DSL) Canada Domestic Substance List	: All components of this product are on the DSL (Canada Domestic Substance List) are exempt from the DSL requirements.

## Section 15. Regulatory Information *cont'd.*

**New Jersey Right-To-Know List** : 14807-96-6 Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)  
 546-93-0 Magnesite  
 112-57-2 3,6,9-triazaundecamethylenediamine  
 140-31-8 2-piperazin-1-ylethylamine  
 1333-86-4 Carbon black

**New Jersey Special Hazardous Substance List** : 14807-96-6 Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>) CA  
 112-57-2 3,6,9-triazaundecamethylenediamine CO  
 140-31-8 2-piperazin-1-ylethylamine CO, F2  
 1333-86-4 Carbon black CA

**Pennsylvania Right-To-Know List** : 14807-96-6 Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)  
 112-57-2 3,6,9-triazaundecamethylenediamine  
 140-31-8 2-piperazin-1-ylethylamine

**Pennsylvania Special Hazardous Substance List** : None of the ingredients are listed.

### CANCEROGENITY CATEGORIES

**EPA (Environmental Protection Agency)** : None of the ingredients are listed.

**TLV (Threshold Limit Value Established by ACGIH)** : 14807-96-6 Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>) A4  
 1333-86-4 Carbon black A4

**MAK (German Maximum Workplace Concentration)** : 14807-96-6 Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>) 3B  
 1333-86-4 Carbon black 3B

**NIOSH-Ca (National Institute for Occupational Safety and Health)** : 1333-86-4 Carbon black

### NATIONAL REGULATIONS

**Water Hazard Class** : Water hazard class 3 (Self-assessment): hazardous for water.

**Chemical Safety Assessment** : A Chemical Safety Assessment has not been carried out.

## Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, The D.S. Brown Company 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 The D.S. Brown Company or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

**Department Issuing SDS** : Environment protection department.

**Creation Date** : 01/17/2017

**Date of Preparation/ Last Revision** : 08/16/2017

**Section 16. Other Information** *cont'd.***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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*

*Resp. Sens. 1: Respiratory sensitisation – Category 1*

*Skin Sens. 1: Skin sensitisation – Category 1*