Section 1. Identification

Trade Name: DSB High Strength Epoxy - Part B
Supplier/Manufacturer: The D.S. Brown Company
300 East Cherry Street
North Baltimore, Ohio 45872

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call: Chemtrec 1-800-424-9300 International 01-703-741-5500.

Section 2. Hazards Identification

Classification of the Substance or Mixture:
- Acute Tox. 4 H332 Harmful if inhaled.
- Skin Corr. 1C H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- Repr. 2 H361 Suspected of damaging fertility or the unborn child.
- Aquatic Acute 3 H402 Harmful to aquatic life.
- Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

GHS Label Elements: The product is classified and labeled according to the Globally Harmonized System (GHS). GHS05, GHS07, GHS08

Hazard Classifications: GHS05, GHS07, GHS08

Hazard Pictograms:

Signal Word: Danger

Hazard-Determining Components of Labeling:
- m-phenylenebis(methylamine)
- 4-nonylphenol, branched
- cyclohex-1,2-ylenediamine
- hexamethylenediamine

Hazard Statements:
- Harmful if inhaled.
- Causes severe skin burns and eye damage.
- May cause an allergic skin reaction.
- Suspected of damaging fertility or the unborn child.
- Harmful to aquatic life.
- Harmful to aquatic life with long lasting effects.

Precautionary Statements:
- Do not breathe dusts or mists.
- **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 a POISON CENTER/doctor.
Section 2. Hazards Identification cont’d.

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

Classification System

NFPA Ratings (Scale 0-4)
- Health = 3
- Fire = 1
- Reactivity = 2

HMIS-Ratings (Scale 0-4)
- Health = 3
- Fire = 1
- Reactivity = 2

Other Hazards: Results of PBT and vPvB assessment:
- PBT: Not applicable.
- vPvB: Not applicable.

Section 3. Composition/Information on Ingredients

Chemical Characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous Components: As follows.

<table>
<thead>
<tr>
<th>Dangerous Component</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-phenylenebis(methylamine)</td>
<td>1477-55-0</td>
<td>10-25%</td>
</tr>
<tr>
<td>calcium carbonate</td>
<td>471-34-1</td>
<td>50-75%</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>≤ 5%</td>
</tr>
<tr>
<td>cyclohex-1,2-ylenediamine</td>
<td>694-83-7</td>
<td>≤ 1%</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light paraffinic</td>
<td>64742-55-8</td>
<td>≤ 1%</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 16.

Section 4. First Aid Measures

General Information: Immediately remove any clothing soiled by the product.
In the event of persistent symptoms receive medical treatment.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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.
Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.

After Skin Contact: Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
If skin irritation continues, consult a doctor.
Section 4. First Aid Measures  cont’d.

After Eye Contact : Rinse opened eye for several minutes under running water. Then consult a doctor.

After Swallowing  : Immediately call a doctor. Drink copious amounts of water and provide fresh air. Immediately call a doctor. 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

Suitable Extinguishing Media : CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special Hazards Arising From the Substance or Mixture : No further relevant information available.

Advice for Firefighters
Protective Equipment : Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6. Accidental Release Measures

Person-Related Safety Precautions : Wear protective equipment. Keep unprotected persons away.

Environmental Precautions : Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

Methods and Material for Containment and Clean-Up : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders sawdust). Use neutralizing agent. Dispose contaminated material as waste according to item 13. 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.
Section 6. Accidental Release Measures  cont’d.

<table>
<thead>
<tr>
<th>Protective Action Criteria for Chemicals</th>
<th>PAC-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>471-34-1 calcium carbonate 45 mg/m³</td>
</tr>
<tr>
<td></td>
<td>14808-60-7 Quartz (SiO₂) 0.075 mg/m³</td>
</tr>
<tr>
<td></td>
<td>546-93-0 Magnesite 45 mg/m³</td>
</tr>
<tr>
<td></td>
<td>694-83-7 cyclohex-1,2-ylenediamine 2.1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>156-87-6 3-aminopropan-1-ol 8.3 mg/m³</td>
</tr>
<tr>
<td></td>
<td>63148-62-9 Siloxanes and Silicones, di-Me 65 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>471-34-1 calcium carbonate 210 mg/m³</td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO₂) 33 mg/m³</td>
</tr>
<tr>
<td>546-93-0 Magnesite 260 mg/m³</td>
</tr>
<tr>
<td>694-83-7 cyclohex-1,2-ylenediamine 23 mg/m³</td>
</tr>
<tr>
<td>156-87-6 3-aminopropan-1-ol 91 mg/m³</td>
</tr>
<tr>
<td>63148-62-9 Siloxanes and Silicones, di-Me 720 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>471-34-1 calcium carbonate 1,300 mg/m³</td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO₂) 200 mg/m³</td>
</tr>
<tr>
<td>546-93-0 Magnesite 1,600 mg/m³</td>
</tr>
<tr>
<td>694-83-7 cyclohex-1,2-ylenediamine 140 mg/m³</td>
</tr>
<tr>
<td>156-87-6 3-aminopropan-1-ol 550 mg/m³</td>
</tr>
<tr>
<td>63148-62-9 Siloxanes and Silicones, di-Me 4,300 mg/m³</td>
</tr>
</tbody>
</table>

Section 7. Handling and Storage

Information on Safe Handling: Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.

Information About Protection Against Explosions and Fires: Keep respiratory protective device available.

Storage Requirements to Be Met by Storerooms and Receptacles: Store in a cool dry location.

Information About Storage in One Common Storage Facility: Store away from incompatible materials.

Further Information About Storage Conditions: Keep receptacle tightly sealed.

Specific End Use(s): No further relevant information available.
Section 8. Exposure Controls/Personal Protection  cont’d.

Additional Information About Design of Technical Systems

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.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>PEL Long-term value</th>
<th>REL Long-term value</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>471-34-1 calcium carbonate</td>
<td>150 mg/m³</td>
<td>100 mg/m³</td>
<td>TLV withdrawn</td>
</tr>
<tr>
<td>1477-55-0 m-phenylenebis(methylamine)</td>
<td>Ceiling limit value: 0.1 mg/m³</td>
<td>Ceiling limit value: 0.1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>14808-60-7 Quartz (SiO2)</td>
<td>See Quartz listing</td>
<td>Ceiling limit value: 0.1 mg/m³</td>
<td>Skin</td>
</tr>
<tr>
<td>546-93-07 Magnesite</td>
<td>150 mg/m³</td>
<td>100 mg/m³</td>
<td>TLV withdrawn</td>
</tr>
</tbody>
</table>

PERSONAL PROTECTIVE EQUIPMENT

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. Store protective clothing separately. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

Breathing Equipment

Use suitable respiratory protective device when high concentrations are present. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Section 8. Exposure Controls/Personal Protection

Protection of Hands

Protective gloves.

Material of Gloves:
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

Penetration time of glove material:
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye Protection

Wear appropriate eye protection to prevent eye contact.

Section 9. Physical and Chemical Properties

Form: Liquid
Color: Grey
Odor: Distinctive
Odor Threshold: Not determined.

pH-Value: Not determined.

Melting Point/Melting Range: Undetermined
Boiling Point/Boiling Range: Undetermined
Flash Point: >94 °C (>201 °F)

Flammability (Solid, Gaseous): Not applicable.
Ignition Temperature: 370 °C (698 °F)
Decomposition Temperature: Not determined.

Auto Igniting: Product is not self-igniting.

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

Explosion Limits:
- Lower: 1.0 Vol %
- Upper: 10.5 Vol %

Vapor Pressure: 20 °C (68 °F): 0.1 hPa

Density at 20 °C (68 °F): 1.776 g/cm³ (14.821 lbs/gal)
Relative Density: Not determined.
Vapor Density: Not determined.
Evaporation Rate: Not determined.
Solubility In / Miscibility with Water: Not miscible or difficult to mix.
Section 9. Physical and Chemical Properties  cont’d.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Dynamic: Not determined.</td>
</tr>
<tr>
<td></td>
<td>Kinematic: Not determined.</td>
</tr>
<tr>
<td>Solvent Content</td>
<td>Organic solvents: 0.0 %</td>
</tr>
<tr>
<td></td>
<td>Solids content: 100.0 %</td>
</tr>
<tr>
<td>Other Information</td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>Chemical Stability</td>
<td>No decomposition if stored and applied as directed.</td>
</tr>
<tr>
<td>Thermal Decomposition / Conditions to be Avoided</td>
<td>No decomposition if used according to specifications.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions</td>
<td>No dangerous reactions known.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Keep away from heat and sources of ignition.</td>
</tr>
<tr>
<td>Incompatible Materials</td>
<td>No further relevant information available.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>No dangerous decomposition product known.</td>
</tr>
</tbody>
</table>

Section 11. Toxicological Information

ACUTE TOXICITY

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50/LC50 values that are relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1477-55-0 m-phenylenebis(methylamine)</td>
<td>Oral LD50 1040 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>Inhalative LC50/4 h 2.4 mg/l (rat)</td>
</tr>
<tr>
<td>25154-52-3 nonylphenol</td>
<td>Oral LD50 1620 mg/kg (rat)</td>
</tr>
<tr>
<td>124-09-4 hexamethylenediamine</td>
<td>Oral LD50 750 mg/kg (rat) Dermal LD50 1110 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Primary Irritant Effect:  
On the Skin: May cause skin irritation.  
On the Eye: Strong caustic effect.

Sensitization:  
No sensitizing effects known.

Additional Toxicological Information:  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Section 11. Toxicological Information  

CARCINOGENIC CATEGORIES

<table>
<thead>
<tr>
<th>Organization</th>
<th>CAS Number</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC (International Agency for Research on Cancer)</td>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td>14808-60-7</td>
<td>Quartz (SiO2)</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
<td></td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

Section 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.

Additional Ecological Information:

General Notes : Water hazard class 1 (Self-assessment): slightly hazardous for water. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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 not be disposed of as normal garbage. Do not allow product to reach sewage system. It is the generator’s responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.

Uncleaned Packaging Recommendation : Disposal must be made according to federal, state, and local regulations.
Section 14. Transport Information

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

UN Proper Shipping Name
DOT, IATA : Corrosive liquids, n.o.s. (nonylphenol).
ADR 1760 : Corrosive liquids, n.o.s. (nonylphenol); ENVIRONMENTALLY HAZARDOUS
IMDG : CORROSIVE LIQUID, N.O.S. (nonylphenol), MARINE POLLUTANT.

Transport Hazard Class(es)
DOT

Class: 8 Corrosive substances.
Label: 8

ADR, IATA

Class: 8 Corrosive substances.
Label: 8

IMDG

Class: 8 Corrosive substances.
Label: 8

Packing Group
DOT, ADR, IMDG, IATA : III

Environmental Hazards
Marine Pollutant : No
Symbol (fish and tree).

Special Precautions for User : Warning: 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.
Section 14. Transport Information  cont’d.

Transport in Bulk
According to Annex II of MARPOL73/78 and the IBC Code

Transport/Additional Information
ADR
Excepted Quantities (EQ) : E1
Code
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

U.S. Domestic Ground Shipments
: Same as listed for Standard Shipments above.

U.S. Domestic Ground Non-Bulk (119 Gal or Less Per Container) Shipments
: Same as listed for Standard Shipments above.

Emergency Response Guide (ERG) Number
: 153

IMDG
Limited Quantities (LQ) : 5L
Code

Excepted Quantities (EQ) : E1
Code
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

UN “Model Regulation” : UN 1760 CORROSIVE LIQUIDS, N.O.S. (NONYLPHENOL), 8, III, ENVIRONMENTALLY HAZARDOUS

Section 15. Regulatory Information

SARA
: Section 355 (extremely hazardous substances): None of the ingredient is listed.

Section 313 (Specific toxic chemical listings): This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

<table>
<thead>
<tr>
<th>Dangerous Component</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>nonylphenol</td>
<td>104-40-5</td>
<td>10-25%</td>
</tr>
</tbody>
</table>
Section 15. Regulatory Information  cont’d.

TSCA (Toxic Substances Control Act) : All ingredients are listed.

Proposition 65 : Chemicals known to the State of California (Prop. 65) to cause cancer:
14808-60-7 Quartz (SiO2)

Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

Chemicals known to cause developmental toxicity:
None of the ingredients is listed.

CANCEROGENICITY CATEGORIES

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

TLV (Threshold Limit Value Established by ACGIH) : 14808-60-7 Quartz (SiO2) A2

MAK (German Maximum Workplace Concentration) : 14808-60-7 Quartz (SiO2) 1

NIOSH-Ca (National Institute for Occupational Safety and Health) : 14808-60-7 Quartz (SiO2)

GHS Label Elements : The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard Pictograms :

Signal Word : Danger

Hazard-Determining Components of Labeling : m-phenylenebis(methylamine)
4-nonylphenol, branched
cyclohex-1,2-ylenediamine
hexamethylenediamine

Hazard Statements : Harmful if inhaled.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.

Precautionary Statements : Do not breathe dusts or mists.

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 a POISON CENTER/doctor. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.
Section 15. Regulatory Information cont’d.

NATIONAL REGULATIONS

Water Hazard Class : Water hazard class 3 (Self-assessment): extremely hazardous for water.
Chemical Safety Assessment : A Chemical Safety Assessment has not been carried out.

Section 16. Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department Issuing SDS : Environmental, Health & Safety Department
Contact : Environmental, Health & Safety Manager
Date of Preparation / Last Revision : 7/27/2018

Abbreviations and Acronyms : 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
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Corr. 1C: Skin corrosion/irritation, Hazard Category 1C
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Repr. 2: Reproductive toxicity, Hazard Category 2