

Section 1. Identification

GHS Product Identifier : PaveSaver - Part B

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against : No further relevant information available.

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

In Case of Emergency : Chemtrec 1-800-424-9300 International 01-703-741-5500

Section 2. Hazards Identification

| | | | | |
|---|-------------------|----|------|---|
| Classification of the Substance or Mixture | : Acute Tox. | 4 | H302 | Harmful if swallowed. |
| | : Skin Irrit. | 2 | H315 | Causes skin irritation. |
| | : Eye Irrit. | 2B | H320 | Causes eye irritation. |
| | : Skin Sens. | 1 | H317 | May cause an allergic skin reaction. |
| | : Repr. | 2 | H361 | Suspected of damaging fertility or the unborn child. |
| | : Aquatic Acute | 1 | H400 | Very toxic to aquatic life. |
| | : Aquatic Chronic | 1 | H410 | Very toxic to aquatic life with long lasting effects. |

LABEL ELEMENTS

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

Hazard Pictograms :   
GHS07 GHS08 GHS09

Signal Word : **Warning**

Hazard Determining Components of Labeling : nonylphenol
3,6-diazaoctanethylenediamin
2,4,6-tris(dimethylaminomethyl)phenol
cyclohex-1,2-ylenediamine

Hazard Statements : Harmful if swallowed.
Causes skin and eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Section 2. Hazards Identification *cont'd.*

GHS Label Elements *cont'd.*

Precautionary Statements : Avoiding breathing dust/fume/gas/mist/vapors/spray
 Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call poison center/doctor if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 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: 0

HMIS-Ratings (scale 0-4) : Health: 3
 Fire: 1
 Reactivity: 0

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

| Ingredient Name | CAS No. | % |
|---------------------------------------|------------|----------|
| nonylphenol | 25154-52-3 | ≥25-<70% |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | ≥0.1-<6% |
| 3,6-diazaoctanethylenediamin | 112-24-3 | ≥5-<5.5% |
| cyclohex-1,2-ylenediamine | 694-83-7 | ≥1-<1.1% |

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.
- 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/ 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.
- Specific 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

- Personal Precautions, Protective Equipment and Emergency Procedures** : Wear protective equipment. Keep unprotected persons away.

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

- 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 Materials for Containment and Cleaning 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.

PROTECTIVE ACTION CRITERIA FOR CHEMICALS

| PAC-1 | | |
|---------------------------------------|------------|-----------------------|
| nonylphenol | 25154-52-3 | 4.9 mg/m ³ |
| Polyoxypropylenediamine | 9046-10-0 | 4.8 mg/m ³ |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | 6.5 mg/m ³ |
| 3,6-diazaoctanethylenediamin | 112-24-3 | 3 ppm |
| cyclohex-1,2-ylenediamine | 694-83-7 | 2.1 mg/m ³ |
| 1,6-hexanolactam | 105-60-2 | 3 mg/m ³ |
| ammonia, anhydrous | 7664-41-7 | 30 ppm |
| perhydroazepine | 111-49-9 | 5.7 mg/m ³ |
| benzene | 71-43-2 | 52 ppm |
| PAC-2 | | |
| nonylphenol | 25154-52-3 | 53 mg/m ³ |
| Polyoxypropylenediamine | 9046-10-0 | 53 mg/m ³ |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | 72 mg/m ³ |
| 3,6-diazaoctanethylenediamin | 112-24-3 | 14 ppm |
| cyclohex-1,2-ylenediamine | 694-83-7 | 23 mg/m ³ |
| 1,6-hexanolactam | 105-60-2 | 40 mg/m ³ |
| ammonia, anhydrous | 7664-41-7 | 160 ppm |
| perhydroazepine | 111-49-9 | 63 mg/m ³ |
| benzene | 71-43-2 | 800 ppm |
| PAC-3 | | |
| nonylphenol | 25154-52-3 | 320 mg/m ³ |
| Polyoxypropylenediamine | 9046-10-0 | 320 mg/m ³ |
| 2,4,6-tris(dimethylaminomethyl)phenol | 90-72-2 | 430 mg/m ³ |
| 3,6-diazaoctanethylenediamin | 112-24-3 | 83 ppm |
| cyclohex-1,2-ylenediamine | 694-83-7 | 140 mg/m ³ |
| 1,6-hexanolactam | 105-60-2 | 240 mg/m ³ |
| ammonia, anhydrous | 7664-41-7 | 1,100 ppm |
| perhydroazepine | 111-49-9 | 380 mg/m ³ |
| benzene | 71-43-2 | 4000* ppm |

Section 7. Handling and Storage

HANDLING

- Precautions for 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** : No special measures required.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Storage** : No data
- Requirements to Be Met by Storerooms and Receptables** : No special requirements.
- 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

- Additional Information About Design of Technical Systems** : No further data; see item 7.

CONTROL PARAMETERS

- Components with Limit Values that Require Monitoring at the Workplace** : 112-24-3 3,6-diazaoctanethylenediamin
WEEL Long-term value: 6 mg/m³, 1 ppm
Skin
- Additional Information** : The lists that were valid during the creation were used as basis.


EXPOSURE CONTROLS

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. Avoid contact with the eyes and skin.
- Breathing Equipment** : 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 *cont'd.*

EXPOSURE CONTROLS

- Protection of Hands** :  Protective gloves.
The glove material has to be impermeable and resistant to the product, the substance, and the preparation.
- Eye Protection** : Wear appropriate eye protection to prevent eye contact.

Section 9. Physical and Chemical Properties

- Appearance**
- Form** : Liquid
- Color** : Amber
- Odor** : Characteristic
- Odor Threshold** : Not determined.
- pH Value** : Not determined.
- Change in Condition**
- Melting Point/
Melting Range** : Undetermined
- Boiling Point/
Boiling Range** : Undetermined
- Flash Point** : > 94°C (> 201.2°F)
- Flammability (Solid, Gaseous)** : Not applicable.
- Ignition Temperature** : 335°C (635°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** : 0.0 Vol %
- Vapor Pressure** : Not determined.
- Density at 20°C (68°F)** : 0.97 g/cm³ (8.09465 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.*

| | |
|--|--|
| Partition Coefficient (n-Octanol/Water) | : Not determined. |
| Viscosity | |
| Dynamic | : Not determined. |
| Kinematic | : Not determined. |
| Solvent Content | |
| Organic Solvents | : 0.0 % |
| Water | : 0.0 % |
| Solids Content | : 100.0% |
| Other Information | : No further relevant information available. |
| Volatile Organic Compounds | : Not determined. |

Section 10. Stability and Reactivity

| | |
|--|---|
| Reactivity | : No decomposition if stored and applied as directed. |
| Chemical Stability | : No decomposition if stored and applied as directed. |
| Thermal Decomposition/ Conditions to Be Avoided | : No decomposition if used according to specifications. |
| Possibility of Hazardous Reactions | : No dangerous reactions known. |
| Conditions to Avoid | : Keep away from heat and sources of ignition. |
| Incompatible Materials | : No further relevant information available. |
| Hazardous Decomposition Products | : No dangerous decomposition products known. |

Section 11. Toxicological Information

Acute Toxicity : LD/LC50 values that are relevant for classification

25154-52-3, nonylphenol

| | | |
|------|------|-------------------|
| Oral | LD50 | 1,620 mg/kg (rat) |
|------|------|-------------------|

112-24-3 3,6-diazaoctanethylenediamin

| | | |
|------|------|-------------------|
| Oral | LD50 | 2,500 mg/kg (rat) |
|------|------|-------------------|

| | | |
|--------|------|--------------------|
| Dermal | LD50 | 805 mg/kg (rabbit) |
|--------|------|--------------------|

Section 11. Toxicological Information *cont'd.*

Primary Irritant Effect

On the Skin

: May cause skin irritation.

On the Eye

: Strong caustic effect.

Strong irritant with the danger of severe eye injury.

Sensitization

: Sensitization possible through skin contact.

Additional Toxicological Information

: The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

CARCINOGENIC CATEGORIES

| | | | |
|---------|------------|------------------|---|
| IARC | : 105-60-2 | 1,6-hexanolactam | 4 |
| | : 71-43-2 | benzene | 1 |
| NTP | : 71-43-2 | benzene | K |
| OHSA-Ca | : 71-43-2 | benzene | |

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.

ECOTOXICAL EFFECTS

Remark : Very toxic for fish.

General Notes : Water hazard class 3 (Self-assessment): extremely hazardous for water. Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Water hazard class 1 (Self-assessment): slightly hazardous for water. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms.

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 PACKAGINGS

Recommendation : Disposal must be made according to federal, state and local regulations.

Section 14. Transport Information

UN-Number

DOT, ADR, ADN, IATA : Not regulated.

IMDG : UN3082

UN Proper Shipping Name

DOT, ADR, ADN, IATA : Not regulated.

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (nonylphenol), MARINE POLLUTANT

TRANSPORT HAZARD CLASS(ES)

DOT, ADR, IATA



Class: Not regulated.
Label: 9
ADN/R Class: Not regulated.


IMDG



Class: 9 Miscellaneous dangerous substances and articles
Label: 9

Section 14. Transport Information *cont'd.*

PACKING GROUP

| | |
|--|---|
| DOT, ADR, IMDG, IATA | : III |
| Environmental Hazards | : Product contains environmentally hazardous substances: 4- nonylphenol, branched |
| Marine Pollutant | : Yes  |
| Special Precautions for User | |
| EMS Number | : F-A, S-F |
| Stowage Category | : A |
| Transport in Bulk | : Not applicable. |
| According to Annex II of MARPOL73/78 and the IBC Code | |

TRANSPORT/ADDITIONAL INFORMATION

| | |
|---|--|
| DOT | : Remarks: Add "Marine Pollutant" to end of proper shipping name if shipping in a bulk container (>119 gallons). |
| ADR | |
| 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 | : Not determined. |
| IMDG | |
| Limited quantities (LQ) | : 5L |
| Excepted quantities (EQ) | : Code E1 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 1,000 ml |
| UN "Model Regulation" | : Not regulated. |

Section 15. Regulatory Information




SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT

| | | | | |
|--|---|---|--------------------|------------|
| SARA 355 (Extremely Hazardous Substances) | : | 7664-41-7 | ammonia, anhydrous | |
| SARA 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. | | |
| | | 25154-52-3 | nonylphenol | ≥25 - <70% |
| | | 7664-41-7 | ammonia, anhydrous | <0.1% |
| | | 71-43-2 | benzene | <0.1% |
| TSCA (Toxic Substances Control Act) | : | All ingredients are listed. | | |
| Proposition 65 | : | Chemicals known to the State of California (Prop. 65) to cause cancer: 71-43-2 benzene | | |
| | | Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed. | | |
| | | Chemicals known to cause reproductive toxicity for males: 71-43-2 benzene | | |
| | | Chemicals known to cause developmental toxicity: 71-43-2 benzene | | |

CANCEROGENITY CATEGORIES

| | | | | |
|---|---|----------|------------------|--------|
| EPA (Environmental Protection Agency) | : | 71-43-2 | benzene | A, K/L |
| TLV (Threshold Limit Value established by ACGIH) | : | 105-60-2 | 1,6-hexanolactam | A5 |
| | | 71-43-2 | benzene | A1 |
| MAK (German Maximum Workplace Concentration) | : | 71-43-2 | benzene | 1 |
| NIOSH-Ca (National Institute for Occupational Safety and Health) | : | 71-43-2 | benzene | |

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

Hazard Pictograms :   
GHS07 GHS08 GHS09

Signal Word : **Warning**

Section 15. Regulatory Information *cont'd.*

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT *cont'd.*

| | |
|--|---|
| Hazard-Determining Components of Labeling | : nonylphenol 3,6-diazaoctanethylenediamin 2,4,6-tris(dimethylaminomethyl)phenol cyclohex-1,2-ylenediamine |
| Hazard Statements | : Harmful if swallowed. Causes skin and eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. |
| Precautionary Statements | : Avoid breathing dust/fume/gas/mist/vapors/spray Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. |

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 | : 1/02/2020 / 221 |
| 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) |

Section 16. Other Information *cont'd.*

Abbreviations and Acronyms : NFPA: National Fire Protection Association (USA)
cont'd. 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 Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
Skin Sens. 1: Sensitization - Skin, Hazard Category 1
Repr. 2: Reproductive toxicity, Hazard Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Aquatic Hazard,
Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Long-term Aquatic
Hazard, Category 1