

## SAFETY DATA SHEET

### SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identifier : **S-465 Prime Strong™ Non-Porous Resin (Part A)**  
Product Code : FP00465108B 0321  
Trade Name/Synonyms : S-465 Resin  
Recommended Use : Epoxy resin for primer, used on non-porous substrates.  
Uses Advised Against : Use only as recommended in the product's Technical Data Sheet.  
For Professional Use only.

Supplier's name and address:

**Armstrong**Flooring™

Armstrong Flooring, Inc.  
1740 Hempstead Road  
Lancaster, PA 17601 USA

Information Telephone No. : (800) 233-3823  
Website Address : <http://www.floorexpert.com> or <http://www.armstrongflooring.com>  
24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)

### SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

: Skin sensitizer, Category 1.  
Eye irritant, Category 2B.  
Skin irritant, Category 2.  
Specific Target Organ Toxicity (Single Exposure), Respiratory; Category 3

GHS Pictograms



Signal Word

: Warning

Hazard Statements

: Causes skin and eye irritation.  
May cause an allergic skin reaction.  
May cause respiratory irritation.

Precautionary Statements

: Do not get in eyes, on skin or on clothing. Avoid breathing vapors or dust. Avoid prolonged contact with skin. Use in well-ventilated area. Wash thoroughly with soap and water after handling. If skin irritation or rash occurs, get medical attention/advice. Contaminated work clothes must not be allowed out of the workplace. Wash contaminated clothing before reuse. Keep container tightly closed. Store in a well-ventilated place. Store locked up. Dispose of contents/container according to local/regional/national regulations. Do not pour product down drains.

During normal usage of the product as recommended, airborne dusts will not be present. See Section 7 (Handling and Storage) for further details.

Hazards Not Otherwise Classified: None

% With Unknown Acute Toxicity : Up to 50% by weight of this product is comprised of ingredients with unknown acute inhalation toxicity.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients                                                                     | CAS #      | % (by weight) |
|---------------------------------------------------------------------------------|------------|---------------|
| Limestone                                                                       | 1317-65-3  | 10.00 – 30.00 |
| 2,2-bis(4-hydroxyphenyl)propane, polymer with (chloromethyl)oxirane epoxy resin | 25068-38-6 | 5.00 – 10.00  |
| Aliphatic glycidyl ether                                                        | 2461-15-6  | 1.00 – 5.00   |
| Phenol, polymer with formaldehyde, glycidyl ether                               | 28064-14-4 | 1.00 – 5.00   |
| Crystalline silica                                                              | 14808-60-7 | 0.10 – 1.00   |

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

### SECTION 4 – FIRST AID MEASURES

|                            |                                                                                                                                                                    |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b>             | : Call a Poison Center or doctor if you feel unwell.                                                                                                               |
| <b>Inhalation</b>          | : Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a doctor/physician.                                                    |
| <b>Skin contact</b>        | : Remove/Take off immediately all contaminated clothing. Flush affected skin with soap and water. IF SKIN irritation or rash occurs: Get medical advice/attention. |
| <b>Eye contact</b>         | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.               |
| <b>Ingestion</b>           | : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.                                                                |
| <b>Notes for Physician</b> | : Treat symptomatically.                                                                                                                                           |

#### Signs and symptoms of short-term (acute) exposure

|                   |                                                                                                                                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Inhalation</i> | : May cause minor, temporary irritation to respiratory tract. Symptoms may include coughing.                                                            |
| <i>Skin</i>       | : May cause skin irritation. Symptoms may include redness and itching. Prolonged or repeated overexposure to dusts/vapors may cause skin sensitization. |
| <i>Eyes</i>       | : Causes irritation to eyes. Symptoms may include redness, itching, blurred vision or pain.                                                             |
| <i>Ingestion</i>  | : Symptoms such as gastric pain, nausea, vomiting, and diarrhea may occur.                                                                              |

#### Effects of long-term (chronic) exposure

- : Prolonged inhalation may cause adverse lung effects with symptoms including coughing and shortness of breath. Some individuals may experience a sensitization reaction of the skin after an initial exposure. Subsequent exposures may cause a hypersensitive skin reaction (rash, swelling).

#### Indication of need for immediate medical attention or special treatment

- : Difficulty breathing persists after removing the person to fresh air.
- : Any exposure to the eye which causes irritation.
- : Blue color of the skin (cyanotic) after exposure.
- : Ingestion.

### SECTION 5 – FIRE FIGHTING MEASURES

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>               | : Carbon dioxide, dry chemical powder, alcohol-resistant foam or water fog.                                                                                                                                                                                                                                                                                                        |
| <b>Unsuitable extinguishing media</b>             | : water jet; may cause fire to spread                                                                                                                                                                                                                                                                                                                                              |
| <b>Hazardous combustion products</b>              | : Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation of organic compounds.                                                                                                                                                                                                                                                   |
| <b>Special fire-fighting procedures/equipment</b> | : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes. |
| <b>Environmental precautions</b>                  | : Do not allow material to enter drains or contaminate ground water system.                                                                                                                                                                                                                                                                                                        |

#### Fire hazards/conditions of flammability

: Not flammable under normal conditions of use. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

#### Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)

: Not flammable

#### NFPA Rating:

: 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe  
*Health: 2 Flammability 1 Reactivity 0 Special Hazards 0*

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

#### Personal precautions

: Wear personal protective equipment resistant to the chemicals in the product. Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment.

#### Protective equipment

: Refer to Section 8 for additional information on acceptable personal protective equipment.

#### Emergency Procedures

: This product does not contain any chemicals that must be reported to the EPA in the event of a spill or release. For advice on chemical spills with this product, call the emergency number listed in Section 1.

US CERCLA Reportable quantity (RQ): None reported.

#### Methods and materials for containment and cleaning up

: Ventilate area of release. Stop spill or leak at source if safely possible. Contain product with inert absorbent material, preventing it from entering sewer lines or waterways. Gather up spilled material and place in suitable container for later disposal (see Section 13). Residual of product, while still wet, can be cleaned up with warm soapy water. Notify the appropriate authorities as required.

#### Prohibited materials

: Avoid strong oxidizing agents.

#### Environmental precautions

: Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system.

#### Reference to other sections

: See Section 13 for disposal information.

## SECTION 7 – HANDLING AND STORAGE

#### Safe handling procedures

: Observe good hygiene standards. Use only with adequate ventilation. Do not eat, drink or smoke in the work area. Wash thoroughly after handling. Avoid contact with skin and eyes. Avoid repeated or prolonged skin contact. Avoid breathing vapors of this product. Sanding and grinding dusts may be harmful if inhaled. When removing this product from existing flooring (i.e. during a renovation), wear safety goggles and respiratory protection from dust. Wear protective clothing to prevent skin contact. Promptly remove any clothing that becomes contaminated. Clean contaminated clothing before reuse. Keep container tightly closed.

#### Storage requirements

: Store in a cool, dry, well-ventilated area. Store locked up. Store away from heat and open flame. Avoid storing in direct sunlight. Store in original container. Keep tightly closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.

#### Incompatible materials

: Avoid strong oxidizing agents.

#### Special packaging materials

: Always keep in containers made of the same materials as the supply container.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Permissible Exposure Limits

: No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

| Ingredients | CAS #     | ACGIH TLV |      | OSHA PEL                                                                     |      |
|-------------|-----------|-----------|------|------------------------------------------------------------------------------|------|
|             |           | TWA       | STEL | PEL                                                                          | STEL |
| Limestone   | 1317-65-3 | N/Av      | N/Av | 15 mg/m <sup>3</sup><br>(Total dust);<br>5 mg/m <sup>3</sup><br>(respirable) | N/Av |

|                                                                                 |            |                                                  |      |                                                              |      |
|---------------------------------------------------------------------------------|------------|--------------------------------------------------|------|--------------------------------------------------------------|------|
| 2,2-bis(4-hydroxyphenyl)propane, polymer with (chloromethyl)oxirane epoxy resin | 25068-38-6 | N/Av                                             | N/Av | N/Av                                                         | N/Av |
| Aliphatic glycidyl ether                                                        | 2461-15-6  | N/Av                                             | N/Av | N/Av                                                         | N/Av |
| Phenol, polymer with formaldehyde, glycidyl ether                               | 28064-14-4 | N/Av                                             | N/Av | N/Av                                                         | N/Av |
| Crystalline silica                                                              | 14808-60-7 | 0.025 mg/m <sup>3</sup><br>(respirable fraction) | N/Av | 0.05 mg/m <sup>3</sup><br>(respirable)<br>(Final rule limit) | N/Av |

- Engineering Controls** : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.
- Personal Protection Equipment**
- Eye / face protection** : Chemical goggles must be worn when using this product. Additionally, a face shield is recommended if splashing is possible.
- Skin protection** : Wear chemical resistant protective clothing and impervious gloves. Materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended.
- Body protection** : Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.
- Respiratory protection** : If work process generates excessive quantities of vapor or dust, or exposures in excess of any PEL, wear a NIOSH approved organic vapor respirator.
- Site safety equipment** : An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Avoid contact with eyes, skin and clothing. Do not breathe vapors/dust. Do not eat, drink or smoke when using this product. Clean all equipment and clothing at end of each work shift.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- |                                             |                              |                                               |                 |
|---------------------------------------------|------------------------------|-----------------------------------------------|-----------------|
| <b>Physical state</b>                       | : Liquid                     | <b>Appearance</b>                             | : Pink liquid   |
| <b>Odor</b>                                 | : slight                     | <b>Odor threshold</b>                         | : N/Av          |
| <b>pH</b>                                   | : N/Av                       | <b>Specific gravity</b>                       | : 1.17 – 1.20   |
| <b>Boiling point</b>                        | : 212°F (100°C)              | <b>Coefficient of water/oil distribution</b>  | : N/Av          |
| <b>Melting/Freezing point</b>               | : N/Av                       | <b>Solubility in water</b>                    | : Dispersible   |
| <b>Vapor pressure (mm Hg @ 20°C / 68°F)</b> | : N/Av                       | <b>Evaporation rate (n-Butyl acetate = 1)</b> | : N/Av          |
| <b>Vapor density (Air = 1)</b>              | : N/Av                       | <b>Volatiles (% by wt, including water)</b>   | : 35 - 40       |
| <b>Volatile organic compounds (VOCs)</b>    | : 5.5 g/L (A + B) ASTM D2369 |                                               |                 |
| <b>Particle size</b>                        | : N/Av                       | <b>Flammability classification</b>            | : Not flammable |
| <b>Flash point</b>                          | : >212°F (100°C)             | <b>Lower flammable limit (% by vol)</b>       | : Not available |
| <b>Flash point method</b>                   | : Setflash closed            | <b>Upper flammable limit (% by vol)</b>       | : Not available |
| <b>Auto-ignition temperature</b>            | : N/Av                       | <b>Decomposition temperature</b>              | : Not available |
| <b>Viscosity</b>                            | : Not available              | <b>Oxidizing properties</b>                   | : Not available |
- Explosion data: Sensitivity to mechanical impact / static discharge**  
: Not expected to be sensitive to mechanical impact or static discharge.

## SECTION 10 – REACTIVITY AND STABILITY INFORMATION

- Reactivity** : Reacts with ammonia and amines. Reaction releases heat.
- Stability** : Stable under the recommended storage and handling conditions prescribed.
- Hazardous reactions** : Hazardous polymerization does not occur.
- Conditions to avoid** : High temperatures.
- Materials to avoid and incompatibility**  
: Strong oxidizing agents.
- Hazardous decomposition products**  
: None known, refer to hazardous combustion products in Section 5.

## SECTION 11 – TOXICOLOGICAL INFORMATION

**Routes of exposure** : Inhalation: YES Skin Absorption: NO Skin and Eyes: YES Ingestion: YES

**Symptoms of exposure** : See Section 4.

### Calculated Acute Toxicity Estimates for the Product

Inhalation : N/Av  
Oral : > 5000 mg/kg  
Dermal : > 6000 mg/kg

**Toxicological data** : See below for individual ingredient acute toxicity data.

| Ingredients                                                         | LC50 (4 hr)<br>Inhalation, rat | LD50          |                |
|---------------------------------------------------------------------|--------------------------------|---------------|----------------|
|                                                                     |                                | Oral, rat     | Dermal, rabbit |
| Limestone                                                           | N/Av                           | 6 450 mg/kg   | N/Av           |
| 2,2-bis(4-hydroxyphenyl)propane, polymer with (chloromethyl)oxirane | N/Av                           | 11 400 mg/kg  | > 6 000 mg/kg  |
| Aliphatic glycidyl ether                                            | N/Av                           | 7 800 mg/kg   | > 2 000        |
| Phenol, polymer with formaldehyde, glycidyl ether                   | N/Av                           | > 5 000 mg/kg | 4 000 mg/kg    |
| Crystalline silica                                                  | N/Av                           | > 22500 mg/kg | N/Av           |

**Skin corrosion or irritation** : Causes irritation to skin.

**Serious eye damage / eye irritation** : Causes irritation to eyes.

**Respiratory or skin sensitization** : Contains epoxy resin, which is known to cause skin sensitization reactions.

**Germ cell mutagenicity** : None known.

**Carcinogenic status** : This product contains Crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by IARC (Group 1), ACGIH (Group A2), NTP (Group 1) and OSHA (OSHA Select carcinogen). During normal usage of the product as recommended, airborne dusts will not be present. See Section 7 for more information. No other components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

**Reproductive toxicity** : None known.

### Specific Target Organ Toxicity, Single Exposure

: May cause respiratory irritation.

### Specific Target Organ Toxicity, Repeated Exposure

: None known.

**Aspiration hazard** : None known.

**Additional information** : N/Av

## SECTION 12 – ECOLOGICAL INFORMATION

**Environmental effects** : The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

**Ecotoxicological** : No data is available on the product itself. Information on components is listed below.

**Ecotoxicity** : No data available.

**Biodegradability** : No data available.

**Bioaccumulative potential** : No data available.

**Mobility in soil** : No data available.

**PBT and vPvB assessment** : No data available.

**Other adverse effects** : No data available.

## SECTION 13 – DISPOSAL CONSIDERATION

**Handling for disposal** : Handle waste according to recommendations in Section 7.

**Methods of disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

**Packaging** : Handle contaminated packaging in the same manner as the product.  
**RCRA** : For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 – TRANSPORTATION INFORMATION

| Regulatory Information            | UN Number | Shipping Name                                                        | Class | Packing Group | Label |
|-----------------------------------|-----------|----------------------------------------------------------------------|-------|---------------|-------|
| TDG                               | None      | This product is not regulated according to Canadian TDG regulations. | None  | None          | None  |
| TDG Additional Information        | None      |                                                                      |       |               |       |
| 49 CFR/DOT                        | None      | This product is not regulated according to US DOT regulations.       | None  | None          | None  |
| 49 CFR/DOT Additional Information | None      |                                                                      |       |               |       |

## SECTION 15 – REGULATORY INFORMATION

### Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non- Domestic Substances List (NDSL).

### US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:

Skin sensitizer, Category 1.

Eye irritant, Category 2B.

Skin irritant, Category 2.

Specific Target Organ Toxicity (Single Exposure) Category 3, Respiratory

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The threshold for this product is 10,000 pounds.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

### U.S. State Right To Know Laws

California Proposition 65:

 **WARNING:** This product can expose you to chemicals including Ethylene oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Other State Right to Know Laws:

| Ingredients and State Right-to-Know Law status | N° CAS     | CA | MA  | MN  | NJ  | NY | PA  | RI  |
|------------------------------------------------|------------|----|-----|-----|-----|----|-----|-----|
| Limestone                                      | 1317-65-3  | No | Yes | No  | Yes | No | Yes | Yes |
| Crystalline silica, quartz                     | 14808-60-7 | No | Yes | Yes | Yes | No | Yes | Yes |

## SECTION 16 – OTHER INFORMATION

HMIS Rating : \* - Chronic Hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe  
*Health: \*2 Flammability 1 Physical Hazard 0 PPE: Gloves, safety glasses*

**Legend** : ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substances List  
EPA: Environmental Protection Agency  
GHS: Globally Harmonized System  
HPR: Hazardous Products Regulations  
IARC: International Agency for Research on Cancer  
Inh: Inhalation  
N/Av: Not Available  
N/Ap: Not Applicable  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible exposure limit  
RCRA: Resource Conservation and Recovery Act  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average  
WHMIS: Workplace Hazardous Materials Identification System

#### Disclaimer of Liability

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user determines the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. Armstrong Flooring, Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

**Prepared By:**  
Armstrong Flooring, Inc.  
1740 Hempstead Road  
Lancaster, PA 17601 USA

(800) 233-3823

Visit our Website: <http://www.floorexpert.com> or <http://www.armstrongflooring.com>

**Revision date:** : 29-Apr-2021

**End of Document**

## SAFETY DATA SHEET

### SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identifier : **S-465 Prime Strong™, Non-Porous Hardener (Part B)**  
Product Code : FP00465108B 0321  
Trade Name/Synonyms : S-465 Hardener  
Recommended Use : Epoxy hardener for primer, used on non-porous substrates.  
Uses Advised Against : Use only as recommended in the product's Technical Data Sheet.  
For Professional Use only.

Supplier's name and address:

**Armstrong**Flooring™

Armstrong Flooring, Inc.  
1740 Hempstead Road  
Lancaster, PA 17601 USA

Information Telephone No. : (800) 233-3823  
Website Address : <http://www.floorexpert.com> or <http://www.armstrongflooring.com>  
24 Hr Emergency Telephone # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)

### SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

: Skin Sensitization 1  
Eye Irritation 2A  
Skin Irritation 2  
Specific Target Organ Toxicity, Single Exposure, Category 3, Respiratory

GHS Pictograms :



Signal Word : Warning

Hazard Statements : Causes serious eye irritation.  
Causes skin irritation.  
May cause an allergic skin reaction.  
May cause respiratory irritation.

Precautionary Statements : Avoid breathing vapor. Do not get in eyes, on skin or on clothing. Wear protective gloves/protective clothing/eye protection. Use only in a well-ventilated area. Wash hands and exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Clean contaminated clothing before reuse. Store in a well-ventilated place. Store in a closed container. Store locked up. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

Hazards not otherwise classified : None.

% With Unknown Acute Toxicity : Up to 15% by weight of this product is comprised of ingredients with unknown acute toxicity.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS



| Ingredients          | CAS #     | % (by weight) |
|----------------------|-----------|---------------|
| Benzyl alcohol       | 100-51-6  | 1.00 – 5.00   |
| Isophoronediamine    | 2855-13-2 | 1.00 – 5.00   |
| Triethylenetetramine | 112-24-3  | 1.00 – 5.00   |

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

## SECTION 4 – FIRST AID MEASURES

- General** : Call a Poison Center or doctor if you feel unwell.
- Inhalation** : Remove person to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Flush affected skin with plenty of soap and water. IF SKIN irritation or rash occurs: Get medical advice/attention.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- Ingestion** : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
- Notes for Physician** : Treat symptomatically.
- Signs and symptoms of short-term (acute) exposure**
- Inhalation* : May cause irritation to the respiratory system producing mild coughing.
- Skin* : May cause redness, itching, and swelling. Contains components which are easily absorbed through the skin.
- Eyes* : Symptoms may include redness, tears in the eyes, itching, blurred vision, or pain.
- Ingestion* : May cause gastric pain, nausea, vomiting, or diarrhea.
- Effects of long-term (chronic) exposure**
- : Some individuals may experience a sensitization reaction of the skin after an initial exposure. Subsequent exposures may cause a hypersensitive skin reaction (rash, swelling).
- Indication of need for immediate medical attention or special treatment**
- : Difficulty breathing persists after removing the person to fresh air.  
Any exposure to the eye which causes irritation.  
Blue color of the skin (cyanotic) after exposure, or chemical burns to the skin.  
Ingestion.

## SECTION 5 – FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide, dry chemical, alcohol-resistant foam, or water spray.
- Unsuitable extinguishing media** : water jet; may cause fire to spread.
- Hazardous combustion products** : Carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, and other vapors and gases that are common to the thermal degradation of organic compounds.
- Special fire-fighting procedures/equipment**
- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.
- Fire hazards/conditions of flammability**
- : Not flammable under normal conditions of use. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.
- Flammability classification (OSHA 29 CFR 1910.1200 and WHMIS 2015)**
- : Nonflammable
- Environmental precautions** : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.

**NFPA Rating**  
Severe

**Hazard Rating Scale:** 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 –

*Health: 2 Flammability 1 Reactivity 0 Special Hazards 0*

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal precautions** : See Section 7 for safe handling procedures. Wear chemically resistant personal protective equipment during clean-up. Restrict access to area until completion of clean-up. All persons dealing with clean-up must be properly trained and wear the appropriate chemically protective equipment.
- Protective equipment** : Refer to Section 8 for information on acceptable personal protective equipment.
- Emergency procedures** : This product does not contain any chemicals which require reporting spills or releases to the U.S. EPA. In case of a spill or release, call the emergency number listed in Section 1 for advice.  
US CERCLA Reportable quantity (RQ): None reported.
- Spill response / clean-up** : Ventilate area of release. Stop spill or leak at source if safely possible. Contain product with inert absorbent material, preventing it from entering sewer lines or waterways. Gather up spilled material and place in suitable container for later disposal. While the material is still wet, use warm water to clean up residue. Notify the appropriate authorities as required.
- Prohibited materials** : None known.
- Environmental precautions** : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.
- Disposal** : See Section 13 for disposal information.

## SECTION 7 – HANDLING AND STORAGE

- Safe handling procedures** : Avoid contact with eyes, skin or clothing. Avoid breathing vapors. Do not swallow. Observe good hygiene standards. Use only with adequate ventilation. Do not eat, drink or smoke in the work area. Wash thoroughly after handling. Avoid repeated or prolonged contact with the skin. People with a history of skin sensitization or asthma, allergies, chronic or recurring respiratory illnesses should not be involved in any process in which this preparation is used. Once a person is sensitized, no further exposure to the sensitizing material should be allowed. Wear protective clothing to prevent skin contact. Promptly remove any clothing that becomes contaminated. Clean contaminated clothing before reuse.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Store away from heat and open flame. Avoid storing in direct sunlight. Store in original container. Keep tightly closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.
- Incompatible materials** : See Section 10.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Permissible Exposure Limits** : No exposure limits have been established for the product. Below are exposure limits for the components in the product.

| Ingredients          | CAS #     | ACGIH TLV    |      | OSHA PEL    |      |
|----------------------|-----------|--------------|------|-------------|------|
|                      |           | TLV          | STEL | PEL         | STEL |
| Benzyl alcohol       | 100-51-6  | 10 ppm WEEL  | N/Av | 10 ppm AIHA | N/Av |
| Isophoronediamine    | 2855-13-2 | N/Av         | N/Av | N/Av        | N/Av |
| Triethylenetetramine | 112-24-3  | 1 ppm (skin) | N/Av | N/Av        | N/Av |

- Engineering controls** : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.
- Personal Protection Equipment**

|                                       |                                                                                                                                                                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye / face protection</b>          | : Safety glasses or chemical goggles must be worn when using this product. A face shield is recommended if splashing is possible.                                                                                                                          |
| <b>Skin protection</b>                | : Wear chemical resistant protective clothing and impervious gloves. Materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended. Contact the glove manufacturer for the breakthrough times for ingredients listed in Section 3.       |
| <b>Body protection</b>                | : Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.                                                                                                                                            |
| <b>Respiratory protection</b>         | : If the work process generates excessive quantities of vapor or dust, or exposures in excess of any PEL, wear an appropriate organic vapor respirator approved by NIOSH.                                                                                  |
| <b>Site safety equipment</b>          | : An eyewash station and safety shower should be made available in the immediate working area.                                                                                                                                                             |
| <b>General hygiene considerations</b> | : Avoid contact with eyes, skin and clothing. Do not breathe vapors/dust. Do not eat, drink or smoke when using this product. Clean all equipment and clothing at end of each work shift. Carefully wash hands and exposed skin thoroughly after handling. |

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

|                                                                            |                                                                          |                                               |                            |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------|----------------------------|
| <b>Physical state</b>                                                      | : Liquid                                                                 | <b>Appearance</b>                             | : White                    |
| <b>Odor</b>                                                                | : Amine                                                                  | <b>Odor threshold</b>                         | : N/Av                     |
| <b>pH</b>                                                                  | : < 11.50                                                                | <b>Specific gravity</b>                       | : 1.02                     |
| <b>Boiling point</b>                                                       | : 212°F (100°C)                                                          | <b>Coefficient of water/oil distribution</b>  | : N/Av                     |
| <b>Melting/Freezing point</b>                                              | : N/Av                                                                   | <b>Solubility in water</b>                    | : Dispersible              |
| <b>Vapor pressure (mm Hg @ 20°C / 68°F)</b>                                | : N/Av                                                                   | <b>Evaporation rate (n-Butyl acetate = 1)</b> | : N/Av                     |
| <b>Vapor density (Air = 1)</b>                                             | : N/Av                                                                   | <b>Volatiles (% by weight)</b>                | : 55 – 60 (includes water) |
| <b>Volatile organic compounds (VOCs)</b>                                   | : 5.5 g/L, A+B, ASTM D2369                                               |                                               |                            |
| <b>Flammability classification</b>                                         | : Nonflammable                                                           | <b>Decomposition temperature</b>              | : N/Av                     |
| <b>Flash point</b>                                                         | : >200°F (>93.3°C)                                                       | <b>Lower flammable limit (% by vol)</b>       | : N/Av                     |
| <b>Flash point method</b>                                                  | : Setaflash closed                                                       | <b>Upper flammable limit (% by vol)</b>       | : N/Av                     |
| <b>Auto-ignition temperature</b>                                           | : N/Av                                                                   | <b>Oxidizing properties</b>                   | : None                     |
| <b>Flame projection length</b>                                             | : N/Av                                                                   | <b>Flashback observed</b>                     | : N/Av                     |
| <b>Explosion data: Sensitivity to mechanical impact / static discharge</b> |                                                                          |                                               |                            |
|                                                                            | : Not expected to be sensitive to mechanical impact or static discharge. |                                               |                            |
| <b>Viscosity</b>                                                           | : N/Av                                                                   |                                               |                            |

## SECTION 10 – REACTIVITY AND STABILITY INFORMATION

|                                               |                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------|
| <b>Reactivity</b>                             | : Reacts with epoxides or isocyanates.                                     |
| <b>Stability</b>                              | : Stable under the recommended storage and handling conditions prescribed. |
| <b>Hazardous polymerization</b>               | : Hazardous polymerization does not occur.                                 |
| <b>Conditions to avoid</b>                    | : Avoid prolonged exposure to heat.                                        |
| <b>Materials to avoid and incompatibility</b> | : Strong oxidizing agents.                                                 |
| <b>Hazardous decomposition products</b>       | : Refer to hazardous combustion products in Section 5.                     |

## SECTION 11 – TOXICOLOGICAL INFORMATION

|                                                            |                                                                                                      |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Routes of exposure</b>                                  | : <i>Inhalation:</i> YES <i>Skin Absorption:</i> YES <i>Skin and Eyes:</i> YES <i>Ingestion:</i> YES |
| <b>Symptoms of exposure</b>                                | : See Section 4.                                                                                     |
| <b>Calculated Acute Toxicity Estimates for the Product</b> |                                                                                                      |
| <i>Inhalation</i>                                          | : > 30 mg/L                                                                                          |
| <i>Oral</i>                                                | : > 3000 mg/kg                                                                                       |
| <i>Dermal</i>                                              | : > 10,000 mg/kg                                                                                     |

**Toxicological data** : Based on individual components, this product is an irritant to skin and eyes, and can cause sensitization by skin contact. See below for individual ingredient acute toxicity data.

| Ingredients          | CAS No.   | LC50 (4 hr)<br>Inhalation, rat | LD50      |                |
|----------------------|-----------|--------------------------------|-----------|----------------|
|                      |           |                                | Oral, rat | Dermal, rabbit |
| Triethylenetetramine | 112-24-3  | N/Av                           | 2500      | 805            |
| Isophoronediamine    | 2855-13-2 | > 5.01                         | 1030      | 1840           |
| Benzyl alcohol       | 100-51-6  | 8.8                            | 1230      | 2000           |

**Skin corrosion or irritation** : Causes irritation to skin.  
**Serious eye damage / eye irritation** : Causes severe irritation to eyes.  
**Respiratory or skin sensitization** : Contains amines, which are known to cause skin sensitization reactions.  
**Germ cell mutagenicity** : None known.  
**Carcinogenic status** : No components present in this product at greater than 0.1% are listed as carcinogens by ACGIH, IARC, OSHA, NIOSH or NTP.  
**Reproductive toxicity** : None known.  
**Specific Target Organ Toxicity, Single Exposure** : May cause respiratory irritation.  
**Specific Target Organ Toxicity, Repeated Exposure** : None known.  
**Aspiration hazard** : None known.  
**Additional information** : N/Av

## SECTION 12 – ECOLOGICAL INFORMATION

**Environmental effects** : The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.  
**Ecotoxicological** : No data is available on the product itself. Information on components is listed below.  
**Persistence and degradability** : Not Available.  
**Bioaccumulative potential** : Not Available.  
**Mobility in soil** : Not Available.  
**PBT and VPVB assessments** : Not Available.  
**Other Adverse Effects** : Material is alkaline and should not be discharged into sewers or waterways.

## SECTION 13 – DISPOSAL CONSIDERATION

**Handling for disposal** : Handle waste according to recommendations in Section 7.  
**Methods of disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.  
**Packaging** : Handle contaminated packaging in the same manner as the product.  
**RCRA** : For disposal of unused or waste material, check with local, state and federal environmental agencies.

## SECTION 14 – TRANSPORTATION INFORMATION

| Regulatory Information     | UN Number | Shipping Name  | Class          | Packing Group | Label |
|----------------------------|-----------|----------------|----------------|---------------|-------|
| TDG                        | None      | Not regulated. | Not regulated. | None          | None  |
| TDG Additional Information | None      |                |                |               |       |
| 49 CFR/DOT                 | None      | Not regulated. | Not regulated. | None          | None  |

|                                         |      |
|-----------------------------------------|------|
| 49 CFR/DOT<br>Additional<br>Information | None |
|-----------------------------------------|------|

## SECTION 15 – REGULATORY INFORMATION

### Canadian Information:

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

### US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:

Skin Sensitization 1  
Eye Irritation 2A  
Skin Irritation 2  
Specific Target Organ Toxicity, Single Exposure, Category 3, Respiratory

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The threshold for this product is 10,000 pounds.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above *de minimus* concentrations.

### U.S. State Right to Know Laws

California Proposition 65:

 **WARNING:** This product can expose you to chemicals including Ethylene oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Other State Right to Know Laws:

| Component            | CAS       | CA | MA  | MN  | NJ  | NY | PA  | RI |
|----------------------|-----------|----|-----|-----|-----|----|-----|----|
| Triethylenetetramine | 112-24-3  | No | Yes | No  | Yes | No | Yes | No |
| Isophoronediamine    | 2855-13-2 | No | No  | Yes | Yes | No | No  | No |
| Benzyl alcohol       | 100-51-6  | No | Yes | No  | No  | No | Yes | No |

## SECTION 16 – OTHER INFORMATION

HMIS Rating : \* - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe

*Health: \*2 Flammability 1 Physical Hazard 0*

clothing

Recommended PPE: Gloves, safety glasses with side shields, protective

### Legend

: ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR: Code of Federal Regulations  
DOT: Department of Transportation  
DSL: Domestic Substances List  
EPA: Environmental Protection Agency

GHS: Globally Harmonized System  
HPR: Hazardous Products Regulations  
IARC: International Agency for Research on Cancer  
Inh: Inhalation  
N/Av: Not Available  
N/Ap: Not Applicable  
NIOSH: National Institute of Occupational Safety and Health  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible exposure limit  
RCRA: Resource Conservation and Recovery Act  
SARA: Superfund Amendments and Reauthorization Act  
STEL: Short Term Exposure Limit  
TDG: Canadian Transportation of Dangerous Goods Act & Regulations  
TLV: Threshold Limit Values  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average  
WEEL: Workplace Environmental Exposure Level  
WHMIS: Workplace Hazardous Materials Identification System

#### **Disclaimer of Liability**

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user determines the adequacy of the safety procedures employed during the use of this product. No warranty of any kind is given or implied. Armstrong Flooring, Inc. will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

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**Revision date:** : 29-Apr-2021

**End of Document**