Safety Data Sheet



Prepared in Accordance with HCS 29 C.F.R. 1910.1200

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier RM-2600A Revision Date: 11/12/2018

Product Name: Speed Bond #1 Component A Supercedes Date: New SDS

1.2 Relevant identified uses of the substance or mixture and uses

advised against

See Technical Datasheet. Base of 2 component adhesive. For use by appropriately trained applicators. Advised against: Home DIY applications. Construction chemical.

1.3 Details of the supplier of the safety data sheet

Supplier: Prime Resins Inc.

2291 Plunkett Road Conyers, GA 30012

USA

Phone: 800-321-7212 Fax: 770-338-0936 www.primeresins.com

Datasheet Produced by: EHS@primeresins.com

1.4 Emergency telephone number: CHEMTREC +001 703 5273887 (Outside US)

CHEMTREC 1-800-424-9300 (Inside US)

2. Hazard Identification

2.1 Classification of the substance or mixture

Hazardous to the aquatic environment, Chronic, category 2 Carcinogenicity, category 2 Eye Irritation, category 2 STOT, single exposure, category 3, RTI Skin Irritation, category 2 Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Warning

Named Chemicals on Label

titanium dioxide, Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

HAZARD STATEMENTS

| Skin Irritation, category 2 | H315 | Causes skin irritation. |
|--|------|--|
| Skin Sensitizer, category 1 | H317 | May cause an allergic skin reaction. |
| Eye Irritation, category 2 | H319 | Causes serious eye irritation. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation. |
| Carcinogenicity, category 2 | H351 | Suspected of causing cancer. |
| Hazardous to the aquatic environment, | H411 | Toxic to aquatic life with long lasting effects. |
| Chronic, category 2 | | |

PRECAUTION PHRASES

| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
|--------------|--|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/ |
| | face protection. |
| P284 | Wear respiratory protection. |
| P302+352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P305+351+338 | IF IN EYES: Rinse cautiously with water for several minutes. |
| | Remove contact lenses, if present and easy to do so. |
| | Continue rinsing. |
| P308+313 | IF exposed or concerned: Get medical advice/attention. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P391 | Collect spillage. |

2.3 Other hazards

Ingestion may cause irritation to mucous membranes.

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

| CAS-No. | <u>Chemical Name</u> | <u>%</u> |
|------------|---|-----------|
| 25068-38-6 | Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) | 75-100 |
| 13463-67-7 | titanium dioxide | 2.5 - <10 |

| CAS-No. | GHS Symbols | GHS Hazard Statements | M-Factors |
|------------|-------------|------------------------------|-----------|
| 25068-38-6 | GHS07-GHS09 | H315-317-319-335-411 | 0 |
| 13463-67-7 | GHS08 | H351 | 0 |

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance.

AFTER INHALATION: Remove person to fresh air. If signs/symptoms continue, get medical attention.

AFTER SKIN CONTACT: Use a mild soap if available. Do not use solvent or thinners to clean skin. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

AFTER INGESTION: Consult a physician. Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

May cause sensitization by skin contact. Irritating to eyes and skin.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Do not use a solid water stream as it may scatter and spread fire. Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. In the event of fire, wear self-contained breathing apparatus. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. For personal protection see section 8.2. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Discharge into the environment must be avoided. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. May cause long-term adverse effects in the aquatic environment.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: People handling epoxy products must have received special training according to guidelines from the National Occupational Health and Safety Board. Wear personal protective equipment. Avoid contact with skin and eyes. Apply technical measures to comply with the occupational exposure limits (see section 8). PROTECTION AND HYGIENE MEASURES: Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze. STORAGE CONDITIONS: Keep out of the reach of children. Keep at temperatures between 10 and 25 °C. Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

Component of multicomponent coatings. The mixing and application to be in accordance with the technical data sheets.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

| <u>Name</u> | CAS-No. ACGIH TWA | ACGIH STEL | ACGIH Ceiling |
|--------------------------------|-------------------|------------|---------------|
| Reaction product: bisphenol-A- | 25068-38-6 | | |

(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

titanium dioxide 13463-67-7 10 MGM3 10 MGM3

Name CAS-No. OSHA PEL OSHA STEL

Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

25068-38-6

titanium dioxide 13463-67-7 15.0 mg/m3

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment, filter A.

EYE PROTECTION: Eye wash bottle with pure water. Safety glasses with side-shields conforming to EN 166.

HAND PROTECTION: Protective gloves complying with EN 374: Nitrile rubber. Butyl rubber. PVA. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location. **ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas.

Not determined

Not determined

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: White paste

Physical State Paste

Odor Slightly aromatic

Odor threshold Not determined

pH Not determined

Melting point / freezing point (°C)

Not determined

Boiling point/range (°C) N.D. - N.D.

Flash Point, (°F / °C) Not determined

Evaporation rate Not determined

Flammability (solid, gas) Not determined

Upper/lower flammability or explosive

limits

Vapour Pressure Not determined

Vapour density Not determined

Relative density 1.21

Solubility in / Miscibility with water

Not determined

Partition coefficient: n-octanol/water

Not determined

Auto-ignition temperature (°C)

Not determined

Auto-ignition temperature (°C) Not determined

Decomposition temperature (°C) Not determined

Explosive properties Not determined

Oxidising properties Not determined

9.2 Other information

Viscosity

VOC Content g/l:

Specific Gravity (g/cm3) 0.000

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under recommended storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Amines cause exothermic reactions.

10.4 Conditions to avoid

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze.

10.5 Incompatible materials

Oxidizing agents. Acids and bases.

10.6 Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). No decomposition if stored and applied as directed.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No information available.

Inhalation LC50: No information available.

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| CAS-No. | Chemical Name | Oral LD50 | Dermal LD50 | Vapor LC50 | Gas LC50 | Dust/Mist LC50 |
|------------|---|----------------------------|---------------------|------------|----------|-----------------------|
| 25068-38-6 | Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700) | >2000 mg/kg, rat, oral | >2000 mg/kg, rat | | 0.000 | 0.000 |
| 13463-67-7 | titanium dioxide | 10000 mg/kg, oral (rat) | | | 0.000 | 6,82 mg/l (rat) 4h |

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Ingestion may cause irritation to mucous membranes. Irritating to eyes and skin. May cause allergic skin reaction. This product may contain Titanium Dioxide, which is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals. This classification is relevant when exposed to titanium dioxide in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):

IC50 72hr (Algae):

No information

No information

No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil:No information

12.5 Results of PBT and vPvB The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

assessment:

12.6 Other adverse effects: No information

| CAS-No. | Chemical Name | EC50 48hr | <u>IC50 72hr</u> | <u>LC50 96hr</u> |
|------------|--|---|------------------|------------------|
| 25068-38-6 | Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700) | 1.8 mg/l | No information | 1.5-7.7 mg/L |
| 13463-67-7 | titanium dioxide | >100 mg/l (EC50, 48h, Daphnia magna OECD202)ation | No information | >1000 mg/l |

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: Dispose of waste material at an approved hazardous waste treatment/disposal facility in accordance with applicable local state, and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems. Contaminated packaging to be disposed of as product. Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

14. Transport Information

14.1 UN number UN3082

14.2 UN proper shipping name Environmentally hazrdous substance, n.o.s.

Technical name Epoxy resin

14.3 Transport hazard class(es) 9

Subsidiary shipping hazard Not applicable

14.4 Packing group

14.5 Environmental hazards Not applicable
 14.6 Special precautions for user Not applicable
 EmS-No.: Not applicable
 14.7 Transport in bulk according to Annex II
 Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

of MARPOL 73/78 and the IBC code

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Carcinogenicity, Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. Clean Air Act:

EPA Coating Category:

EPA VOC Content Limit (g/l):

Product VOC Content (g/l)

Thinning Recommendations:

Application Recommendations:

Not applicable

Not applicable

U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

Chemical NameCAS-No.hydrophobic silicon dioxide67762-90-7

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

Chemical NameCAS-No.hydrophobic silicon dioxide67762-90-7

California Proposition 65:

WARNING: Cancer - www.P65Warnings.ca.gov

WARNING: Reproductive Toxicant -- www.P65Warnings.ca.gov

International Regulations: As follows -

* Canadian DSL:

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Other Information

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H315
H317
H319
H335
H351
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

^{*} As per the federal EPA definition for coating categories in 40 CFR 59.401.

^{**} Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

Reasons for revision

No Information

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark; European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;

European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP); EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP Classification, Labeling & Packaging Regulation

EC European Commission
EU European Union
US United States

CAS Chemical Abstract Service

EINECS European Inventory of Existing Chemical Substances

REACH Registration, Evaluation, Authorization of Chemicals Regulation

GHS Globally Harmonized System of Classification and Labeling of Chemicals

LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit

ppm Parts per million

mg/m3 Milligrams per cubic meter TLV Threshold Limit Value

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety & Health Administration

PEL Permissible Exposure Limits
VOC Volatile organic compounds

g/l Grams per liter

mg/kg Milligrams per kilogram

N/A Not applicable LD50 Lethal dose at 50%

LC50 Lethal concentration at 50%

EC50 Half maximal effective concentration

IC50 Half maximal inhibitory concentration

PBT Persistent bioaccumulative toxic chemical

vPvB Very persistent and very bioaccumulative

EEC European Economic Community

ADR International Transport of Dangerous Goods by Road RID International Transport of Dangerous Goods by Rail

UN United Nations

IMDG International Maritime Dangerous Goods Code
IATA International Air Transport Association

MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978

IBC International Bulk Container
RTI Respiratory Tract Irritation

NE Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

Safety Data Sheet



Prepared in Accordance with HCS 29 C.F.R. 1910.1200

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier RM-2600B Revision Date: 11/12/2018

Product Name: Speed Bond #1 Component B Supercedes Date: New SDS

1.2 Relevant identified uses of the substance or mixture and uses

advised against

Epoxy HardenerHardener of 2 component adhesive. Advised against: Home DIY applications. Construction chemical. Advised against: Please see Technical Data

Sheet.

1.3 Details of the supplier of the safety data sheet

Supplier: Prime Resins Inc.

2291 Plunkett Road Conyers, GA 30012

USA

Phone: 800-321-7212 Fax: 770-338-0936 www.primeresins.com

Datasheet Produced by: EHS@primeresins.com

1.4 Emergency telephone number: CHEMTREC +001 703 5273887 (Outside US)

CHEMTREC 1-800-424-9300 (Inside US)

2. Hazard Identification

2.1 Classification of the substance or mixture

Acute Toxicity, Dermal, category 4
Acute Toxicity, Oral, category 4
Hazardous to the aquatic environment, Acute, category 1
Hazardous to the aquatic environment, Chronic, category 1
Carcinogenicity, category 2
Reproductive Toxicity, category 2
Skin Corrosion, category 1
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

2-piperazin-1-ylethylamine, carbon black, 4-nonylphenol, branched

HAZARD STATEMENTS

| H302 | Harmful if swallowed. |
|--------|---|
| H312 | Harmful in contact with skin. |
| H314-1 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| | H312 H314-1 H317 H351 H361 H400 |

PRECAUTION PHRASES

| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
|----------------------------------|---|
| P264 | Wash hands thoroughly after handling. |
| P270 | Do no eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/ face protection. |
| P284 | Wear respiratory protection. |
| P301+330+331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P302+352 | IF ON SKIN: Wash with plenty of soap and water. |
| P303+361+353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P305+351+338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |
| P305+P351+P3 38 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |
| P308+313 P312 | IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. |
| P333+313 P352 P363 P391 | If skin irritation or rash occurs: Get medical advice/attention. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Collect spillage. |

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

_ . _ . .

Hazardous Ingredients

| <u>CAS-No.</u> | Chemical Name | <u>%</u> |
|----------------|----------------------------|-----------|
| 84852-15-3 | 4-nonylphenol, branched | 50 - <75 |
| 140-31-8 | 2-piperazin-1-ylethylamine | 10 - <25 |
| 1333-86-4 | carbon black | 2.5 - <10 |

| CAS-No. | GHS Symbols | GHS Hazard Statements | M-Factors |
|------------|-------------------------|-----------------------|-----------|
| 84852-15-3 | GHS05-GHS07-GHS08-GHS09 | H302-314-361-400-410 | 0 |
| 140-31-8 | GHS05-GHS06 | H290-311-314-317-412 | 0 |
| 1333-86-4 | GHS08 | H351 | 0 |

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: Show this safety data sheet to the doctor in attendance.

AFTER INHALATION: Move to fresh air. Provide fresh air, rest and warmth. Call a physician immediately. Give oxygen or artificial respiration if needed. When risk of unconsciousness, place and transport the victim in secured recovery position. AFTER SKIN CONTACT: Use a mild soap if available. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Do not use solvent or thinners to clean skin. AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Consult a physician.

AFTER INGESTION: If vomiting occurs spontaneously: Keep head below hips to prevent aspiration of stomach vomit into lungs. Provide fresh air, rest and warmth. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns. Irritating to skin. May cause sensitization by skin contact. Harmful by inhalation and if swallowed. Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11. When symptoms persist or in all cases of doubt seek medical advice.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Heating or fire conditions liberates toxic gas. As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Vapours may form explosive mixtures with air. Solvent vapours are heavier than air and may spread along floors and ignite.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Keep containers and surroundings cool with water spray.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Clean with detergents. Avoid solvents.

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Use only in area provided with appropriate exhaust ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Open drum carefully as content may be under pressure. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Apply technical measures to comply with the occupational exposure limits (see section 8).

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid heat, sparks, flames and other ignition sources.

STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store away from: oxidising materials, acids, and alkalis. Store in upright position only. Storage of corrosive material.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

| Name | CAS-No. | ACGIH TWA | ACGIH STEL | ACGIH Ceiling |
|----------------------------|------------|-----------|------------|---------------|
| 4-nonylphenol, branched | 84852-15-3 | | | |
| 2-piperazin-1-ylethylamine | 140-31-8 | | | |
| carbon black | 1333-86-4 | 3 MGM3 | | |
| Name | CAS-No. | OSHA PEL | OSHA STEL | |
| Name | CAS-NO. | OSHAPEL | OSHASTEL | |
| 4-nonylphenol, branched | 84852-15-3 | | | |
| 2-piperazin-1-ylethylamine | 140-31-8 | | | |

carbon black 1333-86-4 3.5 MG/M3

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Use compressed air or fresh air breathing apparatus in closed compartments. Wear respiratory protection with combination filter (dust and gas filter, EN 14387:2004+A1:2008) during spraying operations: Gas filter type A2 (organic substances). Dust filter P3 (for fine dust).

EYE PROTECTION: If splashes are likely to occur, wear: Face-shield, tightly fitting safety goggles (EN 166).

HAND PROTECTION: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Use chemical resistant gloves and lotions and barrier creams to prevent drying of the skin. Protective gloves complying with EN 374: Butyl rubber. Nitril rubber. Use chemical resistant gloves (EN 374): Butyl rubber. Protective gloves complying with EN 374: Neoprene. Nitrile rubber. Recommended glove material for mixed product: Protective gloves complying with EN 374: Butyl rubber. Nitril rubber.

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location. **ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas.

Not determined

9. Physical and Chemical Properties

| 9.1 | Information on | basic physical | and chemical | nroportice |
|------|----------------|-----------------|----------------|------------|
| 9. I | miormation on | Dasic Drivsical | i and chemical | properties |

Appearance: Black paste

Physical State Paste
Odor Amine

Odor threshold Not determined

pH Not determined

Melting point / freezing point (°C) Not determined

Boiling point/range (°C) 220 - N.D.

Flash Point, (°F / °C)

Not determined

Evaporation rate Not determined

Flammability (solid, gas) Not determined

Upper/lower flammability or explosive

limits

Vapour Pressure Not determined

Vapour density Not determined

Relative density 0.99

Solubility in / Miscibility with water

Partition coefficient: n-octanol/water

Auto-ignition temperature (°C)

Not determined

Viscosity Not determined

Explosive properties Not determined

Oxidising properties Not determined

9.2 Other information

VOC Content g/l:

Specific Gravity (g/cm3) 0.000

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under recommended storage conditions. Stable under normal conditions.

10.3 Possibility of hazardous reactions

No Information

10.4 Conditions to avoid

Avoid heat, sparks, flames and other ignition sources.

10.5 Incompatible materials

Strong oxidizing agents. Keep away from strong oxidising agents and strongly acid or alkaline materials.

10.6 Hazardous decomposition products

In case of fire or hot work operations, hazardous decomposition products may be formed such as:Carbon monoxide (CO), carbon dioxide (CO2), oxides of nitrogen (NOx). Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), aliphatic amines, aldehydes. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), aliphatic amines, aldehydes, cyanides.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No information available.

Inhalation LC50: No information available.

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| CAS-No. | Chemical Name | Oral LD50 | Dermal LD50 | Vapor LC50 | Gas LC50 | Dust/Mist LC50 |
|------------|----------------------------|---------------------------|------------------|------------|----------|----------------|
| 84852-15-3 | 4-nonylphenol, branched | 580 mg/kg oral rat | | | 0.000 | 0.000 |
| 140-31-8 | 2-piperazin-1-ylethylamine | 2108 mg/kg, oral, rat | 866 mg/kg rabbit | | 0.000 | 0.000 |
| 1333-86-4 | carbon black | >15400 mg/kg oral, rat | | | 0.000 | 0.000 |

Additional Information:

Corrosive - causes irreversible eye damage. Chronic exposure has been associated with various neurotoxic effects including permanent brain damage. Chronic exposure causes drying effect on the skin and eczema. Inhalation of vapour or mist can cause headache, nausea, irritation of nose, throat, and lungs. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Corrosive to skin.

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):

IC50 72hr (Algae):

No information

No information

No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

assessment:

12.6 Other adverse effects:No information

| CAS-No. | <u>Chemical Name</u> | EC50 48hr | IC50 72hr | LC50 96hr |
|------------|----------------------------|----------------|----------------|------------|
| 84852-15-3 | 4-nonylphenol, branched | .035 mg/L | .0563 mg/L | .1383 mg/l |
| 140-31-8 | 2-piperazin-1-ylethylamine | 58 mg/l | >1000 mg/L | 2190 mg/l |
| 1333-86-4 | carbon black | No information | No information | |

13. Disposal Considerations

WASTE TREATMENT METHODS: Do not burn, or use a cutting torch on, the empty drum. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local state, and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.

14. Transport Information

14.1 UN number UN1760

14.2 UN proper shipping name Corrosive liquids, n.o.s.

Technical name Nonylphenol, n-Aminoethylpiperazine

14.3 Transport hazard class(es) 8

Subsidiary shipping hazard Not applicable

14.4 Packing group

14.5 Environmental hazards Yes (Nonylphenol)
 14.6 Special precautions for user Not applicable
 EmS-No.: Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Carcinogenicity, Acute Toxicity (any route of exposure), Reproductive toxicity, Skin Corrosion or Irritation, Respiratory or Skin Sensitization

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

Chemical NameCAS-No.4-nonylphenol, branched84852-15-3

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. Clean Air Act:

EPA Coating Category:

EPA VOC Content Limit (g/l):

Product VOC Content (g/l)

Thinning Recommendations:

Application Recommendations:

Not applicable

Not applicable

U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u> CAS-No.

No Chemical Name Found

hydrophobic silicon dioxide 67762-90-7

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u> CAS-No.

No Chemical Name Found hydrophobic silicon dioxide 67762-90-7

California Proposition 65:

WARNING: Cancer - www.P65Warnings.ca.gov

No Proposition 65 Reproductive Toxins exist in this product.

^{*} As per the federal EPA definition for coating categories in 40 CFR 59.401.

^{**} Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

International Regulations: As follows -

* Canadian DSL:

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Other Information

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

| H290 | May be corrosive to metals. |
|------|--|
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H351 | Suspected of causing cancer. |
| H361 | Suspected of damaging fertility or the unborn ch |

H301 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Reasons for revision

This is a new Safety Data Sheet (SDS).

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark; European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;

European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP); EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP Classification, Labeling & Packaging Regulation

EC European Commission
EU European Union
US United States

CAS Chemical Abstract Service

EINECS European Inventory of Existing Chemical Substances

REACH Registration, Evaluation, Authorization of Chemicals Regulation

GHS Globally Harmonized System of Classification and Labeling of Chemicals

LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit

ppm Parts per million

mg/m3 Milligrams per cubic meter TLV Threshold Limit Value

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety & Health Administration

PEL Permissible Exposure Limits
VOC Volatile organic compounds

g/l Grams per liter

mg/kg Milligrams per kilogram

N/A Not applicable LD50 Lethal dose at 50%

LC50 Lethal concentration at 50%

EC50 Half maximal effective concentration
IC50 Half maximal inhibitory concentration
PBT Persistent bioaccumulative toxic chemical
vPvB Very persistent and very bioaccumulative

EEC European Economic Community

ADR International Transport of Dangerous Goods by Road RID International Transport of Dangerous Goods by Rail

UN United Nations

IMDG International Maritime Dangerous Goods Code
IATA International Air Transport Association

MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978

IBC International Bulk Container RTI Respiratory Tract Irritation

NE Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.