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 FG-PMB A Revision Date: 02/25/2021

Product Name: Pitchmastic PmB 0309 Supersedes Date: 09/13/2019

1.2 Relevant identified uses of the substance or mixture and uses

advised against

See Technical Datasheet. For use by appropriately trained applicators. Coating -

Industrial use

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, Inhalation, category 4
Carcinogenicity, category 2
Eye Irritation, category 2
Respiratory Sensitizer, category 1
STOT, repeated exposure, 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

Danger

Named Chemicals on Label

4,4'-methylenediphenyl diisocyanate, Methylenediphenyl diisocyanate,

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. |
| Acute Toxicity, Inhalation, category 4 | H332 | Harmful if inhaled. |
| Respiratory Sensitizer, category 1 | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation. |
| Carcinogenicity, category 2 | H351 | Suspected of causing cancer. |
| STOT, repeated exposure, category 2 | H373 | May cause damage to organs through prolonged or repeated exposure. |

PRECAUTION PHRASES

| P260 P280 | Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/ face protection. |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| P284 | Wear respiratory protection. |
| P285 | In case of inadequate ventilation 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. |
| P314 | Get medical advice/attention if you feel unwell. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P341 | If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P342+311 | If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. |

2.3 Other hazards

Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.

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. Chemical Name <u>%</u>

| | | /5-100 |
|------------|-------------------------------------|----------|
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 10 - <25 |
| 26447-40-5 | Methylenediphenyl diisocyanate | 10 - <25 |

| CAS-No. | GHS Symbols | GHS Hazard Statements | M-Factors |
|------------|-------------|----------------------------------|-----------|
| | GHS07-GHS08 | H315-317-319-332-334-335-373 | 0 |
| 101-68-8 | GHS07-GHS08 | H315-317-319-332-334-335-351-373 | 0 |
| 26447-40-5 | GHS07-GHS08 | H315-317-319-332-334-335-351-373 | 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: Consult a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. Obtain medical attention. 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 damage to organs through prolonged or repeated exposure. Harmful by inhalation. Irritating to respiratory system. Limited evidence of a carcinogenic effect. Irritating to eyes and skin. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

4.3 Indication of any immediate medical attention and special treatment needed

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

Carbon monoxide, carbon dioxide, nitrogen oxide, cyanides, isocyanate vapours. Reacts violently with water.

5.3 Advice for firefighters

Use water spray to cool unopened containers. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In the event of fire, wear self-contained breathing apparatus. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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. Use personal protective equipment. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Discharge into the environment must be avoided. 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

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). Refer to protective measures listed in sections 7 and 8. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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 polyurethane products must have received special training according to guidelines from the National Occupational Health and Safety Board. Persons susceptible to 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. Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Do not breathe vapours or spray mist. 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 30 °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 30 °C. Store in original container. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. 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 |
|-------------------------------------|------------|-----------------|------------|---------------|
| | | | | |
| 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 0.005 PPM | | |
| Methylenediphenyl diisocyanate | 26447-40-5 | | | |
| wetriylerietiprieriyi tilisocyanate | 20447-40-5 | | | |
| <u>Name</u> | CAS-No. | OSHA PEL | OSHA STEL | |
| | | | | |
| | | | | |
| 4,4'-methylenediphenyl diisocyanate | 101-68-8 | 0.02 PPM-CEILIN | | |
| Methylenediphenyl diisocyanate | 26447-40-5 | | | |

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. Combination filter: A2-P2.

EYE PROTECTION: Safety glasses with side-shields conforming to EN 166.

HAND PROTECTION: Isocyanates can harden gloves and increase the risk of their splitting. Protective gloves complying with EN 374: Viton®, Neoprene, Nitril rubber, Butyl rubber. 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:** At temperatures below 30°C, provide a good standard of general ventilation. At temperatures over 30°C - and always if sprayed - exhaust ventilation is required. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

| 9.1 Information on basic physical and chemical proper | 9.1 | Information on | basic phy | vsical and | chemical | properties |
|-------------------------------------------------------|-----|----------------|-----------|------------|----------|------------|
|-------------------------------------------------------|-----|----------------|-----------|------------|----------|------------|

Appearance: Yellow viscous liquid

Physical State Liquid
Odor Musty

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)

Evaporation rate

Not determined

Not determined

Flammability (solid, gas) Not determined

Upper/lower flammability or explosive Not determined

limits - %(V)

Vapour Pressure Not determined
Vapour density Not determined

Relative density 1.09

Solubility in / Miscibility with water

Partition coefficient: n-octanol/water

Not determined

Not determined

Not determined

Not determined

Decomposition temperature (°C)

Not determined

Viscosity 2500 cP

Explosive properties Not determined

Oxidising properties Not determined

9.2 Other information

VOC Content g/l: Not determined

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

Stable under recommended storage conditions. Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.

10.3 Possibility of hazardous reactions

Polymerises at about 200°C with evolution of CO2. Amines and alcohols cause exothermic reactions. Preparation reacts slowly with water resulting in evolution of CO2.

10.4 Conditions to avoid

Avoid temperatures above 30 °C, direct sunlight and contact with sources of heat. Do not freeze.

10.5 Incompatible materials

Keep away from oxidising agents, strongly acid or alkaline materials, as well as of amines, alcohols and water.

10.6 Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke. Preparation reacts slowly with water resulting in evolution of CO2. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

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.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: 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 |
|------------|-------------------------------------|---------------------|-------------|-----------------------|----------|----------------|
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | 15000 mg/kg oral | >9400 mg/kg | 43 ppm vapor 4 hrs | 0.000 | 0.000 |
| 26447-40-5 | Methylenediphenyl diisocyanate | 15000 mg/kg oral | | 43 ppm vapor 4hrs | 0.000 | 0.000 |

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Isocyanates may cause acute irritation and/or sensitisation of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition.

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 | IC50 72hr | LC50 96hr |
|------------|-------------------------------------|----------------|----------------|----------------|
| | | No information | No information | No information |
| 101-68-8 | 4,4'-methylenediphenyl diisocyanate | >1000 mg/l | No information | >1000 mg/l |
| 26447-40-5 | Methylenediphenyl diisocyanate | No information | No information | |

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. 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 Not applicable

14.2 UN proper shipping nameNot regulated for transport according to U.S. DOT, ADR/RID, IMDG,

and IATA regulations.

Technical name

Not applicable

14.3 Transport hazard class(es)

Subsidiary shipping hazard

Not applicable

Not applicable

Not applicable

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 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), 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:

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

4,4'-methylenediphenyl diisocyanate 101-68-8 15

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: Concrete Protection Coating

EPA VOC Content Limit (g/l): 400 g/l
Product VOC Content (g/l) 0

Thinning Recommendations:

Application Recommendations:

Not applicable

Not applicable

^{*} 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.

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.

No NJ Right-To-Know components exist in this product.

Pennsylvania Right-To-Know

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

No PA Right-To-Know components exist in this product.

California Proposition 65:

No Proposition 65 Chemicals exist in this product.

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.

16. Other Information

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

| H315 | Causes skin irritation. |
|------|----------------------------------------------------------------------------|
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Reasons for revision

Revision Description Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
02 - Hazard Identification
03 - Composition/Information On Ingredients
05 - Fire-fighting Measures

08 - Exposure Controls/Personal Protection

09 - Physical and Chemical Properties

15 - Regulatory Information

Substance Hazard Threshold % Changed

Revision Statement(s) Changed

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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 FG-PMB B Revision Date: 02/25/2021

Product Name: Pitchmastic PmB 0308 Supersedes Date: 09/08/2020

1.2 Relevant identified uses of the substance or mixture and uses

advised against

See Technical Datasheet. For use by appropriately trained applicators. Coating -

Industrial use

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 STOT, repeated exposure, category 2 Skin Corrosion, category 1B Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

3-Aminomethyl-3,5,5-trimethylcyclohexylamine, Diethylmethylbenzenediamine

H314-1B

HAZARD STATEMENTS

Skin Corrosion, category 1B

| Skin Sensitizer, category 1 | H317 | May cause an allergic skin reaction. |
|--------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------|
| STOT, repeated exposure, category 2 | H373 | May cause damage to organs through prolonged or repeated exposure. |
| Hazardous to the aquatic environment, Chronic, category 2 | H411 | Toxic to aquatic life with long lasting effects. |
| PRECAUTION PHRASES | | |
| | P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| | P264 | Wash hands thoroughly after handling. |
| | P273 | Avoid release to the environment. |
| | P280 | Wear protective gloves/protective clothing/eye protection/ face protection. |
| | P301+330+331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| | 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+P351+P3 | IF IN EYES: Rinse cautiously with water for several minutes. |
| | 38 | Remove contact lenses, if present and easy to do so. Continue rinsing. |
| | P314 | Get medical advice/attention if you feel unwell. |
| | P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |
| | P363 | Wash contaminated clothing before reuse. |
| | | |

Collect spillage.

Causes severe skin burns and eye damage.

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.

P391

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

| CAS-No. | Chemical Name | <u>%</u> |
|------------|----------------------------------------------|------------|
| 68479-98-1 | Diethylmethylbenzenediamine | 10 - <25 |
| 2855-13-2 | 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 2.5 - <10 |
| 280-57-9 | triethylenediamine | 1.0 - <2.5 |
| 1314-98-3 | zinc sulfide | 1.0 - <2.5 |

 CAS-No.
 GHS Symbols
 GHS Hazard Statements
 M-Factors

 68479-98-1
 GHS07-GHS08-GHS09
 H302-312-319-373-400-410
 0

2855-13-2 GHS05-GHS07 H302-314-317 0 280-57-9 GHS07 H302-312-315-319-332 0 1314-98-3 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.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. 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: 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.

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

No Information

4.3 Indication of any immediate medical attention and special treatment needed

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: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Dry powderFoamCarbon dioxide (CO2).

Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

No Information

6.3 Methods and material for containment and cleaning up

Pick up and transfer to properly labelled containers. No special environmental precautions required. After cleaning, flush away traces with water.

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: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Avoid prolonged contact with eyes, skin and clothing.

PROTECTION AND HYGIENE MEASURES: When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid dust accumulation in enclosed space. STORAGE CONDITIONS: Keep tightly closed in a dry and cool place.

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)

| <u>Name</u> | CAS-No. | ACGIH TWA | ACGIH STEL | ACGIH Ceiling |
|--------------------------------------------------|------------|-----------|------------|---------------|
| Diethylmethylbenzenediamine | 68479-98-1 | | | |
| 3-Aminomethyl-3,5,5- trimethylcyclohexylamine | 2855-13-2 | | | |
| triethylenediamine | 280-57-9 | | | |
| zinc sulfide | 1314-98-3 | | | |

| Name | CAS-No. | OSHA PEL | OSHA STEL | |
|--------------------------------------------------|------------|----------|-----------|--|
| Diethylmethylbenzenediamine | 68479-98-1 | | | |
| 3-Aminomethyl-3,5,5- trimethylcyclohexylamine | 2855-13-2 | | | |
| triethylenediamine | 280-57-9 | | | |
| zinc sulfide | 1314-98-3 | | | |

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

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: In case of insufficient ventilation wear suitable respiratory equipment.

EYE PROTECTION: Tightly fitting safety goggles.

HAND PROTECTION: Impervious gloves. 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). Long sleeved clothing.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Blue viscous liquid

Physical State Liquid
Odor Amine

Odor threshold Not determined

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 - %(V)

Vapour Pressure Not determined
Vapour density Not determined

Relative density 1.05

Solubility in / Miscibility with water

Partition coefficient: n-octanol/water

Auto-ignition temperature (°C)

Not determined

Not determined

Not determined

Not determined

Viscosity 3800 cP

Explosive properties Not determined

Oxidising properties Not determined

9.2 Other information

VOC Content g/l: Not determined

Specific Gravity (g/cm3) 1.050

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Avoid dust accumulation in enclosed space.

10.5 Incompatible materials

No Information

10.6 Hazardous decomposition products

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

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.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: 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

2855-13-2 3-Aminomethyl-3,5,5trimethylcyclohexylamine 1030 mg/kg, rat rat 2000 mg/kg,
rat 2000 mg/kg,
rat 0.000 5.01 mg/l 4 hr

Additional Information:

No Information

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):No informationIC50 72hr (Algae):No informationLC50 96hr (fish):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

assessment:

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

12.6 Other adverse effects: No information

| CAS-No. | <u>Chemical Name</u> | EC50 48hr | IC50 72hr | LC50 96hr |
|------------|--------------------------------------------------|----------------|----------------|----------------|
| 68479-98-1 | Diethylmethylbenzenediamine | No information | No information | |
| 2855-13-2 | 3-Aminomethyl-3,5,5- trimethylcyclohexylamine | 23 mg/l | >50 mg/l | 110 mg/l |
| 280-57-9 | triethylenediamine | No information | No information | No information |
| 1314-98-3 | zinc sulfide | No information | No information | |

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

14.1 UN number UN3082

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

Technical name Diethyltoluenediamine, Isophorone diamine

14.3 Transport hazard class(es) 9

Subsidiary shipping hazard Not applicable

14.4 Packing group

14.5 Environmental hazards Yes (Diethylmethylbenzenediamine)

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:

Skin Corrosion or Irritation, Respiratory or Skin Sensitization, 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 substances exist in this product above de minimis concentrations.

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: Concrete Protective Coating

EPA VOC Content Limit (g/l): 400
Product VOC Content (g/l) 0

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.Non-hazardous, supplier trade secretunknown

Pennsylvania Right-To-Know

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

Chemical NameCAS-No.Non-hazardous, supplier trade secretunknown

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.

16. Other Information

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

H302 Harmful if swallowed. H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

^{*} 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.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Reasons for revision

Substance and/or Product Properties Changed in Section(s): 01 - Identification
Revision Statement(s) Changed

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.