# Safety Data Sheet

**Issue Date** No data available **Revision Date** 13-Feb-2015 **Revision Number** 5

## 1. IDENTIFICATION

**Product identifier**
**Product Code** S252-00GRA
**Product Name** MP VINYL ESTER GRAY

**Other means of identification**
**Common Name** SERIES 252SC, PART A
**UN/ID no.** 1263

**Recommended use of the chemical and restrictions on use**
**Recommended Use** industrial paint.
**Uses advised against** Consumer use, For professional use only. Not for residential use.

**Details of the supplier of the safety data sheet**
**Manufacturer Address**
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

**Emergency telephone number**
**Company Phone Number** Tnemec Regulatory Dept: 816-474-3400
**24 Hour Emergency Phone Number** 800-535-5053 (Infotrac)

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Carcinogenicity | Category 1B |
| Reproductive Toxicity | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Specific target organ toxicity (repeated exposure) | Category 1 |
| Flammable Liquids | Category 2 |

**Label elements**

**EMERGENCY OVERVIEW**

**Danger**

**Hazard statements**
Harmful if swallowed
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause cancer
Suspected of damaging fertility or the unborn child
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
Highly flammable liquid and vapor

**Appearance** grey **Physical state** liquid **Odor** sweet

**Precautionary Statements**
**Prevention**
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Use explosion-proof electrical/ventilating/lighting/mixing/equipment
Do not breathe dust/fume/gas/mist/vapors/spray

**Response**
IF exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

**Storage**
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Keep away from children

**Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
**Other information**
Toxic to aquatic life with long lasting effects
SEE SAFETY DATA SHEET
Acute Toxicity 63.0851 % of the mixture consists of ingredient(s) of unknown toxicity.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight-% |
|---|---|---|
| STYRENE | 100-42-5 | 30 - 60% |

| | | |
|---|---|---|
| TITANIUM DIOXIDE (TOTAL DUST) | 13463-67-7 | 1 - 10% |
| METHACRYLIC ACID | 79-41-4 | 1 - 10% |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

**Description of first aid measures**

**General advice** If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

**Inhalation** Remove to fresh air. Oxygen or artificial respiration if needed.

**Ingestion** If swallowed, do not induce vomiting. Get medical attention immediately.

**Self-protection of the first aider** Use personal protective equipment. Avoid contact with eyes, skin and clothing.

**Most important symptoms and effects, both acute and delayed**

**Notes to physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Dry chemical. Carbon dioxide (CO2). Water spray. Foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**
Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

**Hazardous combustion products** Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide (CO2). Hydrocarbons.

**Protective equipment and precautions for firefighters**
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental Precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment** Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

**Incompatible products** Can react violently with lithium metal. Incompatible with oxidizing agents. Amines. Strong bases. Aluminum. calcium. Zinc.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines** .

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| STYRENE<br>100-42-5 | TWA: 20 ppm<br>STEL: 40 ppm | TWA: 50 ppm<br>TWA: 215 mg/m³<br>STEL: 100 ppm<br>STEL: 425 mg/m³<br>TWA: 100 ppm<br>Ceiling: 200 ppm | 700 ppm |
| TITANIUM DIOXIDE (TOTAL DUST)<br>13463-67-7 | TWA: 10 mg/m³ | TWA: 10 mg/m³<br>TWA: 15 mg/m³ | 5000 mg/m³ |
| METHACRYLIC ACID<br>79-41-4 | TWA: 20 ppm | TWA: 20 ppm<br>TWA: 70 mg/m³<br>Skin | |

**Appropriate engineering controls**

**Engineering measures** Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH"s Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

**Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

| | |
|---|---|
| **Respiratory protection** | Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use. |
| **General hygiene considerations** | Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical state** | liquid | | |
| **Appearance** | grey | **Odor** | sweet |
| **Color** | No information available | **Odor threshold** | No information available |

| **Property** | **Values** | **Remarks** |
|---|---|---|
| **pH** | | No data available |
| **Melting point / freezing point** | | No data available |
| **Boiling point / boiling range** | 145 °C / 293.0 °F | |
| **Flash point** | 21 °C / 70.0 °F | Pensky Martens - Closed Cup |
| **Evaporation rate** | | No data available |
| **Flammability (solid, gas)** | | No information available |
| **Flammability Limit in Air** | | No data available |
| **Upper flammability limit** | N/A | |
| **Lower flammability limit** | 1.1% | |
| **Vapor pressure** | | No data available |
| **Vapor density** | | No data available |
| **Specific gravity** | 1.11624 | g/cm3 |
| **Water solubility** | Insoluble in cold water | |
| **Solubility in other solvents** | | No data available |
| **Partition coefficient: n-octanol/water** | | No data available |
| **Autoignition temperature** | | No data available |
| **Decomposition temperature** | | No data available |
| **Kinematic viscosity** | | No data available |
| **Dynamic viscosity** | | No data available |

**Other Information**

| | |
|---|---|
| **Density** | 9.28882 lbs/gal |
| **Volatile organic compounds (VOC) content** | .018 lbs/gal |
| **Total volatiles weight percent** | .1930 % |
| **Total volatiles volume percent** | .2501 % |

## 10. STABILITY AND REACTIVITY

**Reactivity**
No data available

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
None under normal processing.

**Conditions to avoid**
Heat, flames and sparks. Extremes of temperature and direct sunlight. Exposure to air or moisture over prolonged periods.

**Incompatible materials**
Can react violently with lithium metal, Incompatible with oxidizing agents, Amines, Strong bases, Aluminum, calcium, Zinc

**Hazardous decomposition products**

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide (CO2). Hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Inhalation** May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

**Eye contact** Causes serious eye irritation.

**Skin contact** Irritating to skin.

**Ingestion** Harmful if swallowed.

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| STYRENE 100-42-5 | = 1000 mg/kg ( Rat ) | | = 11.7 mg/L ( Rat ) 4 h |
| TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7 | > 10000 mg/kg ( Rat ) | | |
| METHACRYLIC ACID 79-41-4 | = 1060 mg/kg ( Rat ) | = 500 mg/kg ( Rabbit ) 500 - 1000 mg/kg ( Rabbit ) | = 7.1 mg/L ( Rat ) 4 h |

**Information on toxicological effects**

**Symptoms** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

**Sensitization** No information available.

**Mutagenicity** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| STYRENE 100-42-5 | | Group 2B | Reasonably Anticipated | X |
| TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7 | | Group 2B | | X |

**Reproductive effects** Suspected of damaging fertility or the unborn child.

**STOT - single exposure** Eyes, hearing, Respiratory system, Skin

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure

**Target organ effects** Central nervous system, Eyes, kidney, liver, Lungs, Reproductive System, respiratory system, Skin, hearing.

**Aspiration hazard** Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

**Acute Toxicity** 63.0851 % of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

66.8221 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Toxicity to algae | Toxicity to fish | Toxicity to daphnia |
|---|---|---|---|
| STYRENE<br>100-42-5 | 0.15 - 3.2: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 1.4: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.46 - 4.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.72: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 6.75 - 14.5: 96 h Pimephales promelas mg/L LC50 static 3.24 - 4.99: 96 h Pimephales promelas mg/L LC50 flow-through 19.03 - 33.53: 96 h Lepomis macrochirus mg/L LC50 static 58.75 - 95.32: 96 h Poecilia reticulata mg/L LC50 static | 3.3 - 7.4: 48 h Daphnia magna mg/L EC50 |

**Persistence and degradability**
No information available.

**Bioaccumulation**
No information available.

**Mobility in Environmental Media**

| Component | log Pow |
|---|---|
| STYRENE<br>100-42-5 | 2.95 |
| METHACRYLIC ACID<br>79-41-4 | 0.93 |

**Other Adverse Effects** No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal Methods** Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

| Component | CAWAST |
|---|---|
| STYRENE<br>100-42-5 | Toxic<br>Ignitable |

## 14. TRANSPORT INFORMATION

**DOT**

| | |
|---|---|
| **UN/ID no.** | 1263 |
| **Proper Shipping Name** | paint |
| **Hazard Class** | 3 |
| **Packing Group** | III |
| **Emergency Response Guide Number** | 128 |

**IATA**

| | |
|---|---|
| **UN/ID no.** | 1263 |
| **Proper Shipping Name** | paint |
| **Hazard Class** | 3 |
| **Packing Group** | III |
| **ERG Code** | 366 |

**Additional information** Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

## 15. REGULATORY INFORMATION

### International Inventories

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **EINECS/ELINCS** | Does not comply |
| **ENCS** | Does not comply |
| **IECSC** | Complies |
| **KECL** | Complies |
| **PICCS** | Does not comply |
| **AICS** | Does not comply |

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):**

| **Component** | **HAPS Data** |
|---|---|
| STYRENE | |

### United States of America

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

| Component | SARA 313 - Threshold Values |
|---|---|
| STYRENE - 100-42-5 | 0.1 |

**SARA 311/312 Hazardous Categorization**

| | |
|---|---|
| **Acute Health Hazard** | Yes |
| **Chronic Health Hazard** | No |
| **Fire Hazard** | Yes |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | No |

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| STYRENE<br>100-42-5 | 1000 lb | | | X |

**CERCLA**

| Component | Hazardous Substances RQs | CERCLA EHS RQs | RQ |
|---|---|---|---|
| STYRENE<br>100-42-5 | 1000 lb | | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

### United States of America

**California Prop. 65**

WARNING! This product contains a chemical known in the State of California to cause cancer

| Component | California Prop. 65 |
|---|---|
| TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7 | Carcinogen |

**California SCAQMD Rule 443**
Contains Photochemically Reactive Solvent

**State Right-to-Know**

| Component | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| STYRENE<br>100-42-5 | X | X | X |
| TITANIUM DIOXIDE (TOTAL DUST)<br>13463-67-7 | X | X | X |
| METHACRYLIC ACID<br>79-41-4 | X | X | X |

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health** 2 | **Flammability** 3 | **Instability** 1 | **Physical hazard** - |
| **HMIS (Hazardous Material Information System)** | **Health** 2 | **Flammability** 3 | **Reactivity** 1 | |

**Prepared By** Tnemec Regulatory Dept: 816-474-3400
**Revision Date** 13-Feb-2015
**Revision Summary**
9 4 5 7 10 8 11 14
**Disclaimer**
**For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.**
**To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.**

**End of MSDS**

# Safety Data Sheet

**Issue Date** No data available **Revision Date** 16-Feb-2015 **Revision Number** 6

## 1. IDENTIFICATION

**Product identifier**
**Product Code** S252-0252B
**Product Name** MP VINYL ESTER VINYL ESTER PAR

**Other means of identification**
**Common Name** SERIES 252 PART B
**UN/ID no.** 3105

**Recommended use of the chemical and restrictions on use**
**Recommended Use** industrial paint.
**Uses advised against** Consumer use, For professional use only. Not for residential use.

**Details of the supplier of the safety data sheet**
**Manufacturer Address**
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

**Emergency telephone number**
**Company Phone Number** Tnemec Regulatory Dept: 816-474-3400
**24 Hour Emergency Phone Number** 800-535-5053 (Infotrac)

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |
| Skin corrosion/irritation | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Organic Peroxides | Type D |
| Flammable Liquids | Category 4 |

**Label elements**

**EMERGENCY OVERVIEW**

**Danger**

**Hazard statements**
Harmful if swallowed
Causes severe skin burns and eye damage
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Heating may cause a fire
Combustible liquid

**Appearance** clear **Physical state** liquid **Odor** aromatic

**Precautionary Statements**
**Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep/Store away from clothing/ Incompatible materials /combustible materials
Keep only in original container
Keep cool

**Response**
Immediately call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

**Storage**
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Protect from sunlight
Store at temperatures not exceeding 30 °C/ 86 °F. Keep cool
Store away from other materials
Keep away from children

**Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
**Other information**
Harmful to aquatic life with long lasting effects
SEE SAFETY DATA SHEET
Acute Toxicity 27 % of the mixture consists of ingredient(s) of unknown toxicity.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight-% |
|---|---|---|
| METHYL ETHYL KETONE PEROXIDE | 1338-23-4 | 30 - 60% |
| DIMETHYL PHTHALATE | 131-11-3 | 30 - 60% |

| | | |
|---|---|---|
| PROPRIETARY DILUENT | - | 10 - 30% |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

**Description of first aid measures**

**General advice** If symptoms persist, call a physician.

**Eye contact** Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

**Inhalation** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion** Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center IMMEDIATELY. Treat symptomatically.

**Self-protection of the first aider** Use personal protective equipment. Avoid contact with eyes, skin and clothing.

**Most important symptoms and effects, both acute and delayed**

**Notes to physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Dry chemical. Foam. Carbon dioxide (CO2). Dry powder.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**
Explosion risk in case of fire Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

**Hazardous combustion products** Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide (CO2). Hydrocarbons.

**Protective equipment and precautions for firefighters**
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation.

**Environmental Precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment** Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

**Methods for cleaning up** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Avoid contact with eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling. Wear personal protective equipment. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep container tightly closed in a dry and well-ventilated place. Protect from light. Store at temperatures not exceeding 30 °C/ 86 °F. Keep cool. Keep out of the reach of children.

**Incompatible products** Promoters, accelerators, reducing agents, strong acids, and other reactive chemicals.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines** .

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| METHYL ETHYL KETONE PEROXIDE 1338-23-4 | Ceiling: 0.2 ppm | Ceiling: 0.7 ppm<br>Ceiling: 5 mg/m³ | |
| DIMETHYL PHTHALATE 131-11-3 | TWA: 5 mg/m³ | TWA: 5 mg/m³ | 2000 mg/m³ |

**Appropriate engineering controls**

**Engineering measures** Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH"s Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

**Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust created by cutting, sanding, or grinding.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical state** | liquid | | |
| **Appearance** | clear | **Odor** | aromatic |
| **Color** | No information available | **Odor threshold** | No information available |

| **Property** | **Values** | **Remarks** |
|---|---|---|
| **pH** | | No data available |
| **Melting point / freezing point** | | No data available |
| **Boiling point / boiling range** | 72 °C / 162 °F | |
| **Flash point** | 79 °C / 175.0 °F | Pensky Martens - Closed Cup |
| **Evaporation rate** | | No data available |
| **Flammability (solid, gas)** | | No information available |
| **Flammability Limit in Air** | | No data available |
| **Upper flammability limit** | N/A | |
| **Lower flammability limit** | N/A | |
| **Vapor pressure** | | No data available |
| **Vapor density** | | No data available |
| **Specific gravity** | 1.07299 | g/cm3 |
| **Water solubility** | Insoluble in cold water | |
| **Solubility in other solvents** | | No data available |
| **Partition coefficient: n-octanol/water** | | No data available |
| **Autoignition temperature** | | No data available |
| **Decomposition temperature** | | No data available |
| **Kinematic viscosity** | | No data available |
| **Dynamic viscosity** | | No data available |

**Other Information**

| | |
|---|---|
| **Density** | 8.92889 lbs/gal |
| **Volatile organic compounds (VOC) content** | 8.929 lbs/gal |
| **Total volatiles weight percent** | 100.0000 % |
| **Total volatiles volume percent** | 100.0000 % |

## 10. STABILITY AND REACTIVITY

**Reactivity**
No data available

**Chemical stability**
Unstable. at high temperatures.

**Possibility of hazardous reactions**
None under normal processing.

**Conditions to avoid**
Extremes of temperature and direct sunlight. Heat, flames and sparks.

**Incompatible materials**
Promoters, accelerators, reducing agents, strong acids, and other reactive chemicals

**Hazardous decomposition products**
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide (CO2). Hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Inhalation** May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

**Eye contact** Severely irritating to eyes.

**Skin contact** Contact causes severe skin irritation and possible burns.

**Ingestion** Harmful if swallowed.

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| METHYL ETHYL KETONE PEROXIDE 1338-23-4 | = 407 mg/kg ( Rat ) = 470 mg/kg ( Rat ) | | = 200 ppm ( Rat ) 4 h |
| DIMETHYL PHTHALATE 131-11-3 | = 6800 mg/kg ( Rat ) | > 4800 mg/kg ( Rat ) > 20 mL/kg ( Rabbit ) | |

**Information on toxicological effects**

**Symptoms** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

**Sensitization** No information available.
**Mutagenicity** No information available.
**Carcinogenicity** There are no known carcinogenic chemicals in this product.
**Reproductive effects** No information available.
**STOT - single exposure** Eyes, Skin, Respiratory system
**STOT - repeated exposure** No information available
**Aspiration hazard** No information available.

**Acute Toxicity** 27 % of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

65 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Toxicity to algae | Toxicity to fish | Toxicity to daphnia |
|---|---|---|---|
| DIMETHYL PHTHALATE 131-11-3 | 204: 72 h Desmodesmus subspicatus mg/L EC50 20.6 - 45.8: 96 h Pseudokirchneriella subcapitata mg/L EC50 26.1: 96 h Skeletonema costatum mg/L EC50 142: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 28.4 - 71: 72 h Pseudokirchneriella subcapitata mg/L EC50 | 56: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 49.5: 96 h Lepomis macrochirus mg/L LC50 39: 96 h Pimephales promelas mg/L LC50 flow-through 100 - 220: 96 h Leuciscus idus mg/L LC50 static 37 - 69: 96 h Lepomis macrochirus mg/L LC50 static 121: 96 h Pimephales promelas mg/L LC50 static | 33: 48 h Daphnia magna mg/L EC50 |

**Persistence and degradability**
No information available.

**Bioaccumulation**
No information available.

**Mobility in Environmental Media**

| Component | log Pow |
|---|---|
| DIMETHYL PHTHALATE<br>131-11-3 | 2.12 |

**Other Adverse Effects** No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal Methods** Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

| Component | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---|---|---|---|---|
| METHYL ETHYL KETONE PEROXIDE<br>1338-23-4 | U160 | | | U160 |
| DIMETHYL PHTHALATE<br>131-11-3 | U102 | Included in waste stream:<br>F039 | | U102 |

| Component | CAWAST |
|---|---|
| METHYL ETHYL KETONE PEROXIDE<br>1338-23-4 | Toxic<br>Ignitable |

## 14. TRANSPORT INFORMATION

**DOT**

| | |
|---|---|
| **UN/ID no.** | 3105 |
| **Proper Shipping Name** | ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDES, <45%), |
| **Hazard Class** | 5.2 |
| **Packing Group** | II |
| **Emergency Response Guide Number** | 145 |

**IATA**

| | |
|---|---|
| **UN/ID no.** | 3105 |
| **Proper Shipping Name** | ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDES, <45%), |
| **Hazard Class** | 5.2 |
| **Packing Group** | II |
| **ERG Code** | 570 |

**Additional information** Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

## 15. REGULATORY INFORMATION

**International Inventories**

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **EINECS/ELINCS** | Complies |
| **ENCS** | Does not comply |
| **IECSC** | Does not comply |
| **KECL** | Does not comply |
| **PICCS** | Does not comply |
| **AICS** | Complies |

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):**

| Component | HAPS Data |
|---|---|
| DIMETHYL PHTHALATE | |

## United States of America

### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

| Component | SARA 313 - Threshold Values |
|---|---|
| DIMETHYL PHTHALATE - 131-11-3 | 1.0 |

### SARA 311/312 Hazardous Categorization

| | |
|---|---|
| **Acute Health Hazard** | Yes |
| **Chronic Health Hazard** | Yes |
| **Fire Hazard** | Yes |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | No |

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| DIMETHYL PHTHALATE 131-11-3 | | X | X | |

### CERCLA

| Component | Hazardous Substances RQs | CERCLA EHS RQs | RQ |
|---|---|---|---|
| METHYL ETHYL KETONE PEROXIDE 1338-23-4 | 10 lb | | RQ 10 lb final RQ<br>RQ 4.54 kg final RQ |
| DIMETHYL PHTHALATE 131-11-3 | 5000 lb | | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

## United States of America

### California Prop. 65

This product does not contain any Proposition 65 chemicals

### California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

### State Right-to-Know

| Component | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| METHYL ETHYL KETONE PEROXIDE 1338-23-4 | X | X | X |
| DIMETHYL PHTHALATE 131-11-3 | X | X | X |

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health** 3 | **Flammability** 2 | **Instability** 1 | **Physical hazard** - |
| **HMIS (Hazardous Material Information System)** | **Health** 3 | **Flammability** 2 | **Reactivity** 1 | |

**Prepared By** Tnemec Regulatory Dept: 816-474-3400
**Revision Date** 16-Feb-2015
**Revision Summary**
9 4 5 6 7 10 8 11 14 15

**Disclaimer**

**For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.**
**To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.**

**End of MSDS**

# Safety Data Sheet

**Issue Date** No data available **Revision Date** 27-Jan-2015 **Revision Number** 4

## 1. IDENTIFICATION

**Product identifier**
**Product Code** S211-0214
**Product Name** FUMED SILICA S C MORTAR

**Other means of identification**
**Common Name** SERIES 211-214

**Recommended use of the chemical and restrictions on use**
**Recommended Use** industrial paint.
**Uses advised against** Consumer use, For professional use only. Not for residential use.

**Details of the supplier of the safety data sheet**
**Manufacturer Address**
Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372

**Emergency telephone number**
**Company Phone Number** Tnemec Regulatory Dept: 816-474-3400
**24 Hour Emergency Phone Number** 800-535-5053 (Infotrac)

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Serious eye damage/eye irritation | Category 2 |
| Carcinogenicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 1 |
| Specific target organ toxicity (repeated exposure) | Category 1 |

**Label elements**

**EMERGENCY OVERVIEW**

**Danger**

**Hazard statements**
Harmful if swallowed
Harmful if inhaled
Causes serious eye irritation
May cause cancer
Causes damage to organs
Causes damage to organs through prolonged or repeated exposure

**Appearance** light grey **Physical state** powder **Odor** odorless

**Precautionary Statements**
**Prevention**
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray

**Response**
IF exposed: Call a POISON CENTER or doctor/physician
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

**Storage**
Store locked up
Keep away from children

**Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
**Other information**
Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).
Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs
SEE SAFETY DATA SHEET
Acute Toxicity 0.000102 % of the mixture consists of ingredient(s) of unknown toxicity.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight-% |
|---|---|---|
| CRYSTALLINE SILICA (QUARTZ) | 14808-60-7 | 30 - 60% |
| CRYSTALLINE SILICA (QUARTZ) | 14808-60-7 | 30 - 60% |
| COAL FIRED FLY ASH BI-PRODUCT | 68131-74-8 | 1 - 10% |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

**Description of first aid measures**

**General advice** If symptoms persist, call a physician.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

**Inhalation** Remove to fresh air. Oxygen or artificial respiration if needed.

**Ingestion** If swallowed, do not induce vomiting. Get medical attention immediately.

**Self-protection of the first aider** Use personal protective equipment. Avoid contact with eyes, skin and clothing.

**Most important symptoms and effects, both acute and delayed**

**Notes to physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**
Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

**Hazardous combustion products** Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.

**Environmental Precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment** Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

**Methods for cleaning up** Shovel or sweep up.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Tightly fitting safety goggles. Wear protective gloves/clothing. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

**Incompatible products** Incompatible with oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure guidelines** .

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| CRYSTALLINE SILICA (QUARTZ) 14808-60-7 | TWA: 0.025 mg/m³ | TWA: 0.1 mg/m³ | 50 mg/m³ |
| CRYSTALLINE SILICA (QUARTZ) 14808-60-7 | TWA: 0.025 mg/m³ | TWA: 0.1 mg/m³ | 50 mg/m³ |
| COAL FIRED FLY ASH BI-PRODUCT 68131-74-8 | TWA: 1 mg/m³ | - | 100 mg/m³ 10 mg/m³ |

**Appropriate engineering controls**

**Engineering measures** Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH"s Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Use chemical resistant splash type goggles.

**Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.
Avoid breathing dust created by cutting, sanding, or grinding.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

**Physical state** powder
**Appearance** light grey
**Color** No information available

**Odor** odorless
**Odor threshold** No information available

| Property | Values | Remarks |
|---|---|---|
| **pH** | | No data available |
| **Melting point / freezing point** | | No data available |
| **Boiling point / boiling range** | 72 °C / 162 °F | |
| **Flash point** | No information available | |

| | | |
|---|---|---|
| **Evaporation rate** | | No data available |
| **Flammability (solid, gas)** | | Not applicable |
| **Flammability Limit in Air** | | No data available |
| **Upper flammability limit** | N/A | |
| **Lower flammability limit** | N/A | |
| **Vapor pressure** | | No data available |
| **Vapor density** | | No data available |
| **Specific gravity** | 2.34955 | g/cm3 |
| **Water solubility** | Insoluble in cold water | |
| **Solubility in other solvents** | | No data available |
| **Partition coefficient: n-octanol/water** | | No data available |
| **Autoignition temperature** | | No data available |
| **Decomposition temperature** | | No data available |
| **Kinematic viscosity** | | No data available |
| **Dynamic viscosity** | | No data available |

**Other Information**

| | |
|---|---|
| **Density** | 19.59523 lbs/gal |
| **Volatile organic compounds (VOC) content** | 0 lbs/gal |
| **Total volatiles weight percent** | 0 % |
| **Total volatiles volume percent** | 0 % |

## 10. STABILITY AND REACTIVITY

**Reactivity**
No data available

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
None under normal processing.

**Conditions to avoid**
Heat, flames and sparks.

**Incompatible materials**
Incompatible with oxidizing agents

**Hazardous decomposition products**
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide (CO2). Hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Inhalation** Harmful if inhaled. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.

**Eye contact** Severely irritating to eyes.

**Skin contact** Irritating to skin.

**Ingestion** Harmful if swallowed.

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| CRYSTALLINE SILICA (QUARTZ) 14808-60-7 | = 500 mg/kg ( Rat ) | | |

| | | | |
|---|---|---|---|
| CRYSTALLINE SILICA (QUARTZ)<br>14808-60-7 | = 500 mg/kg ( Rat ) | | |
| COAL FIRED FLY ASH<br>BI-PRODUCT<br>68131-74-8 | > 2000 mg/kg ( Rat ) | | |

**Information on toxicological effects**

**Symptoms** Respiratory disorders. Eye Damage.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).

**Sensitization** No information available.

**Mutagenicity** No information available.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| CRYSTALLINE SILICA (QUARTZ)<br>14808-60-7 | A2 | Group 1 | Known | X |
| CRYSTALLINE SILICA (QUARTZ)<br>14808-60-7 | A2 | Group 1 | Known | X |
| COAL FIRED FLY ASH<br>BI-PRODUCT<br>68131-74-8 | | Group 1 | Known | |

**Reproductive effects** No information available.

**STOT - single exposure** Eyes, Respiratory system

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure

**Target organ effects** blood, Central nervous system, Central Vascular System (CVS), Eyes, kidney, liver, Lungs, Nasal Cavities, prostate, respiratory system, Skin.

**Aspiration hazard** Not applicable.

**Acute Toxicity** 0.000102 % of the mixture consists of ingredient(s) of unknown toxicity.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

98.08407 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Toxicity to algae | Toxicity to fish | Toxicity to daphnia |
|---|---|---|---|
| COAL FIRED FLY ASH<br>BI-PRODUCT<br>68131-74-8 | | | 140 - 2000: 24 h Daphnia magna mg/L EC50 |

**Persistence and degradability**
No information available.

**Bioaccumulation**
No information available.

**Mobility in Environmental Media**

**Other Adverse Effects** No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal Methods** Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

| Component | CAWAST |
|---|---|
| COAL FIRED FLY ASH BI-PRODUCT<br>68131-74-8 | Toxic<br>Corrosive |

## 14. TRANSPORT INFORMATION

**DOT**

**Proper Shipping Name** SILICA, N.O.I.-20-P.C.F., GREATER (ITEM 176370, SUB 3)

**IATA**

**Proper Shipping Name** Not regulated

**Additional information** Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

## 15. REGULATORY INFORMATION

**International Inventories**

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **EINECS/ELINCS** | Complies |
| **ENCS** | Does not comply |
| **IECSC** | Complies |
| **KECL** | Complies |
| **PICCS** | Complies |
| **AICS** | Complies |

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):**

| Component | HAPS Data |
|---|---|
| COAL FIRED FLY ASH BI-PRODUCT | |

**United States of America**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

| Component | SARA 313 - Threshold Values |
|---|---|
| COAL FIRED FLY ASH BI-PRODUCT - 68131-74-8 | 1.0 0.1 |

**SARA 311/312 Hazardous Categorization**

**Acute Health Hazard** Yes

| | |
|---|---|
| **Chronic Health Hazard** | Yes |
| **Fire Hazard** | No |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | No |

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| COAL FIRED FLY ASH BI-PRODUCT 68131-74-8 | | X | | |

**CERCLA**

## United States of America

**California Prop. 65**

WARNING! This product contains a chemical known in the State of California to cause cancer

| Component | California Prop. 65 |
|---|---|
| CRYSTALLINE SILICA (QUARTZ) - 14808-60-7 | Carcinogen |
| CRYSTALLINE SILICA (QUARTZ) - 14808-60-7 | Carcinogen |
| COAL FIRED FLY ASH BI-PRODUCT - 68131-74-8 | Carcinogen |

**California SCAQMD Rule 443**

Does Not Contain Photochemically Reactive Solvent

**State Right-to-Know**

| Component | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| CRYSTALLINE SILICA (QUARTZ) 14808-60-7 | X | X | X |
| CRYSTALLINE SILICA (QUARTZ) 14808-60-7 | X | X | X |
| COAL FIRED FLY ASH BI-PRODUCT 68131-74-8 | X | | X |

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health** 1 | **Flammability** 0 | **Instability** 0 | **Physical hazard** * |
| **HMIS (Hazardous Material Information System)** | **Health** 1* | **Flammability** 0 | **Reactivity** 0 | |

**Prepared By** Tnemec Regulatory Dept: 816-474-3400
**Revision Date** 27-Jan-2015
**Revision Summary**
9 4 5 7 10 8 11 14

**Disclaimer**

**For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.**
**To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.**

**End of MSDS**