

Version: 2.0 Revision Date: 10/31/2017

This is a kit that contains the following components: DURALPREP AC KIT (1:1/36) PART A, DURALPREP AC PART A DURALPREP AC PART B, DURALPREP AC PART B DURALPREP AC PART C (BULK), DURALPREP AC PART C



Version: 2.0 Revision Date: 10/31/2017

# SAFETY DATA SHEET

### 1. Identification

Product identifier: DURALPREP AC KIT (1:1/36) PART A, DURALPREP AC PART A Product Code: TD2353899

#### Recommended use and restriction on use

Recommended use: Sealant Restrictions on use: Not known.

# Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY 19218 REDWOOD ROAD CLEVELAND OH 44110 US

### Contact person: Telephone: Emergency telephone number:

EH&S Department 216-531-9222 1-800-424-9300 (US); 1-613-996-6666 (Canada)

### 2. Hazard(s) identification

### **Hazard Classification**

### Health Hazards

| Acute toxicity (Inhalation - vapor) | Category 4  |
|-------------------------------------|-------------|
| Serious Eye Damage/Eye Irritation   | Category 2B |
| Skin sensitizer                     | Category 1  |

### **Unknown toxicity - Health**

| Acute toxicity, oral                     | 59.89 % |
|--|---------|
| Acute toxicity, dermal                   | 59.89 % |
| Acute toxicity, inhalation, vapor        | 98.58 % |
| Acute toxicity, inhalation, dust or mist | 98.57 % |

### Unknown toxicity - Environment

| Acute hazards to the aquatic<br>environment   | 96.2 % |
|---|--------|
| Chronic hazards to the aquatic<br>environment | 100 %  |

### Label Elements

### Hazard Symbol:



| Signal Word:                                  | Warning  |
|---|--|
| Hazard Statement:                             | May cause an allergic skin reaction.<br>Causes eye irritation.<br>Harmful if inhaled.  |
| Precautionary<br>Statements                   |  |
| Prevention:                                   | Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.   |
| Response:                                     | IF INHALED: Remove person to fresh air and keep comfortable for<br>breathing. If in eyes: Rinse cautiously with water for several minutes.<br>Remove contact lenses, if present and easy to do. Continue rinsing. If eye<br>irritation persists: Get medical advice/attention. IF ON SKIN: Wash with<br>plenty of water. If skin irritation or rash occurs: Get medical advice/attention.<br>Call a POISON CENTER/doctor/ if you feel unwell. Specific treatment (see<br>this label). Wash contaminated clothing before reuse. |
| Disposal:                                     | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.   |
| Hazard(s) not otherwise<br>classified (HNOC): | None.  |

# 3. Composition/information on ingredients

### **Mixtures**

| Chemical Identity                       | CAS number | Content in percent (%)* |
|---|------------|-------------------------|
| Bisphenol A Polyglycidyl Ether<br>Resin | 25068-38-6 | 20 - <50%               |
| Octylphenoxypolyethoxy ethanol          | 9036-19-5  | 1 - <5%                 |
| Benzyl alcohol                          | 100-51-6   | 1 - <5%                 |

All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# 4. First-aid measures

Ingestion:

Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth.

Inhalation:

Move to fresh air.



| Skin Contact:  | If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention. |  |
|--|---|--|
| Eye contact:   | Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.   |  |
| Most important symptoms/effect   | s, acute and delayed  |  |
| Symptoms:  | No data available.  |  |
| Hazards:   | No data available.  |  |
| Indication of immediate medical  | attention and special treatment needed  |  |
| Treatment:   | No data available.  |  |
| 5. Fire-fighting measures  |   |  |
| General Fire Hazards:  | No unusual fire or explosion hazards noted.   |  |
| Suitable (and unsuitable) extinguishing media                              |   |  |
| Suitable extinguishing media:  | Use fire-extinguishing media appropriate for surrounding materials.   |  |
| Unsuitable extinguishing media:  | Do not use water jet as an extinguisher, as this will spread the fire.  |  |
| Specific hazards arising from the chemical:                                | During fire, gases hazardous to health may be formed.   |  |
| Special protective equipment an  | d precautions for firefighters  |  |
| Special fire fighting procedures:  | No data available.  |  |
| Special protective equipment for fire-fighters:                            | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |  |
| 6. Accidental release measures   |   |  |
| Personal precautions,<br>protective equipment and<br>emergency procedures: | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.   |  |
| Methods and material for<br>containment and cleaning<br>up:                | Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.   |  |
|  |   |  |



| Notification Procedures:  | In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.  |
|---|--|
| Environmental Precautions:  | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.   |
| 7. Handling and storage   |  |
| Precautions for safe handling:                                      | Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.   |
| Conditions for safe storage,<br>including any<br>incompatibilities: | Store away from incompatible materials. Store in original tightly closed container.  |
| 8. Exposure controls/personal                                       | protection   |
| Control Parameters<br>Occupational Exposure Limit                   |  |
|   | None of the components have assigned exposure limits.<br>None of the components have assigned exposure limits.   |
| Appropriate Engineering<br>Controls                                 | Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.   |
| Individual protection measures, s                                   | such as personal protective equipment  |
| General information:  | Good general ventilation (typically 10 air changes per hour) should be used.<br>Ventilation rates should be matched to conditions. Supplementary local<br>exhaust ventilation, closed systems, or respiratory and eye protection may<br>be needed in special circumstances, such as poorly ventilated spaces,<br>heating, evaporation of liquids from large surfaces, spraying of mists,<br>mechanical generation of dusts, drying of solids, etc. |
| Eye/face protection:  | Wear safety glasses with side shields (or goggles).  |
| Skin Protection<br>Hand Protection:                                 | Use suitable protective gloves if risk of skin contact.  |
| Other:  | Wear suitable protective clothing. Wear chemical-resistant gloves, footwear,<br>and protective clothing appropriate for the risk of exposure. Contact health<br>and safety professional or manufacturer for specific information.  |
| Respiratory Protection:   | In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.  |
| Hygiene measures:   | Observe good industrial hygiene practices. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.   |



# 9. Physical and chemical properties

| Appearance  |   |  |
|---|---|--|
| Physical state:                                       | liquid  |  |
| Form:   | liquid  |  |
| Color:  | Amber   |  |
| Odor:   | Mild  |  |
| Odor threshold:                                       | No data available.  |  |
| pH:   | No data available.  |  |
| Melting point/freezing point:                         | No data available.  |  |
| Initial boiling point and boiling range:              | No data available.  |  |
| Flash Point:  | > 93 °C > 200 °F(Setaflash Closed Cup)  |  |
| Evaporation rate:                                     | Slower than Ether   |  |
| Flammability (solid, gas):                            | No  |  |
| Upper/lower limit on flammability or explosive limits |   |  |
| Flammability limit - upper (%):                       | No data available.  |  |
| Flammability limit - lower (%):                       | No data available.  |  |
| Explosive limit - upper (%):                          | No data available.  |  |
| Explosive limit - lower (%):                          | No data available.  |  |
| Vapor pressure:                                       | No data available.  |  |
| Vapor density:  | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |  |
| Relative density:                                     | 0.99  |  |
| Solubility(ies)                                       |   |  |
| Solubility in water:                                  | Insoluble in water  |  |
| Solubility (other):                                   | No data available.  |  |
| Partition coefficient (n-octanol/water):              | No data available.  |  |
| Auto-ignition temperature:                            | No data available.  |  |
| Decomposition temperature:                            | No data available.  |  |
| Viscosity:  | No data available.  |  |
|   |   |  |

# 10. Stability and reactivity

| Reactivity:                          | No data available.  |
|--------------------------------------|---|
| Chemical Stability:                  | Material is stable under normal conditions.   |
| Possibility of hazardous reactions:  | No data available.  |
| Conditions to avoid:                 | Avoid heat or contamination.  |
| Incompatible Materials:              | No data available.  |
| Hazardous Decomposition<br>Products: | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |



| 11. Toxicological information   |  |  |  |
|---|--|--|--|
| Information on likely routes of<br>Inhalation:                        | exposure<br>In high concentrations, vapors, fumes or mists may irritate nose, throat and<br>mucus membranes. |  |  |
| Skin Contact:   | May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.       |  |  |
| Eye contact:  | Causes eye irritation.   |  |  |
| Ingestion:  | May be ingested by accident. Ingestion may cause irritation and malaise.                                     |  |  |
| Symptoms related to the physi   | cal, chemical and toxicological characteristics  |  |  |
| Inhalation:   | No data available.   |  |  |
| Skin Contact:   | No data available.   |  |  |
| Eye contact:  | No data available.   |  |  |
| Ingestion:  | No data available.   |  |  |
| Information on toxicological ef                                       | fects  |  |  |
| Acute toxicity (list all possib                                       | Acute toxicity (list all possible routes of exposure)  |  |  |
| Oral<br>Product:  | ATEmix: 45,684.11 mg/kg  |  |  |
| Dermal<br>Product:  | ATEmix: 3,371.29 mg/kg   |  |  |
| Inhalation<br>Product:  | ATEmix: 11 mg/l  |  |  |
| Repeated dose toxicity<br>Product:                                    | No data available.   |  |  |
| Skin Corrosion/Irritation<br>Product:                                 | No data available.   |  |  |
| Specified substance(s):<br>Bisphenol A<br>Polyglycidyl Ether<br>Resin | in vivo (Rabbit): Slightly irritating Experimental result, Key study   |  |  |
| Benzyl alcohol  | in vivo (Rabbit): Not irritant Experimental result, Key study  |  |  |



| Serious Eye Damage/Eye Irritation<br>Product:<br>Specified substance(s): | <b>on</b><br>No data available.                        |
|--|--|
| Bisphenol A<br>Polyglycidyl Ether<br>Resin                               | Rabbit, 24 hrs: Slightly irritating                    |
| Respiratory or Skin Sensitization<br>Product:                            | <b>n</b><br>No data available.                         |
| Carcinogenicity<br>Product:  | No data available.                                     |
| IARC Monographs on the Evalua<br>No carcinogenic component               | ation of Carcinogenic Risks to Humans:<br>s identified |
| US. National Toxicology Program<br>No carcinogenic component             | m (NTP) Report on Carcinogens:<br>s identified         |
| US. OSHA Specifically Regulate<br>No carcinogenic component              | d Substances (29 CFR 1910.1001-1050):<br>s identified  |
| Germ Cell Mutagenicity   |  |
| In vitro<br>Product:   | No data available.                                     |
| In vivo<br>Product:  | No data available.                                     |
| Reproductive toxicity<br>Product:  | No data available.                                     |
| Specific Target Organ Toxicity -<br>Product:                             | Single Exposure<br>No data available.                  |
| Specific Target Organ Toxicity -<br>Product:                             | Repeated Exposure<br>No data available.                |
| Aspiration Hazard<br>Product:  | No data available.                                     |
| Other effects:   | No data available.                                     |



# 12. Ecological information

# Ecotoxicity:

# Acute hazards to the aquatic environment:

| Fish<br>Product:   | No data available.  |
|--|---|
| Specified substance(s):<br>Bisphenol A Polyglycidyl<br>Ether Resin | LC 50 (Oncorhynchus mykiss, 96 h): 2 mg/l Experimental result, Key study              |
| Octylphenoxypolyethoxy<br>ethanol                                  | LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 7.2 mg/l Mortality |
| Benzyl alcohol   | LC 50 (Fathead minnow (Pimephales promelas), 96 h): 460 mg/l Mortality                |
| Aquatic Invertebrates<br>Product:                                  | No data available.  |
| Specified substance(s):<br>Bisphenol A Polyglycidyl<br>Ether Resin | EC 50 (Daphnia magna, 48 h): 1.8 mg/l Experimental result, Key study                  |
| Octylphenoxypolyethoxy ethanol                                     | LC 50 (Water flea (Daphnia magna), 48 h): 7.5 - 9.8 mg/l Mortality                    |
| Benzyl alcohol   | EC 50 (Daphnia magna, 48 h): 230 mg/l Experimental result, Key study                  |
| Chronic hazards to the aquatic environment:                        |   |

| Fish<br>Product:   | No data available.  |
|--|---|
| Aquatic Invertebrates<br>Product:                                  | No data available.  |
| Specified substance(s):<br>Bisphenol A Polyglycidyl<br>Ether Resin | NOEC (Daphnia magna, 21 d): 0.3 mg/l Experimental result, Key study |
| Toxicity to Aquatic Plants<br>Product:                             | No data available.  |
| Persistence and Degradability                                      |   |
| Biodegradation<br>Product:   | No data available.  |
| BOD/COD Ratio  |   |



| Product:   | No data available.  |  |  |
|--|---|--|--|
| Bioaccumulative potential<br>Bioconcentration Factor (BC<br>Product: | CF)<br>No data available.   |  |  |
| Specified substance(s):<br>Bisphenol A Polyglycidyl<br>Ether Resin   | Bioconcentration Factor (BCF): 31 Aquatic sediment QSAR, Key study  |  |  |
| Partition Coefficient n-octanol / v<br>Product:                      | vater (log Kow)<br>No data available.   |  |  |
| Specified substance(s):<br>Bisphenol A Polyglycidyl<br>Ether Resin   | Log Kow: 2.64 - 3.78 25 °C Yes Experimental result, Key study   |  |  |
| Benzyl alcohol   | Log Kow: 1.10   |  |  |
| Mobility in soil:  | No data available.  |  |  |
| Other adverse effects:   | No data available.  |  |  |
| 13. Disposal considerations  |   |  |  |
| Disposal instructions:   | Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |  |  |
| Contaminated Packaging:  | No data available.  |  |  |
| 14. Transport information  |   |  |  |
| TDG:   |   |  |  |

Not Regulated

# CFR / DOT:

Not Regulated

### IMDG:

Not Regulated

# 15. Regulatory information

# US Federal Regulations TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)



None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance None present or none present in regulated quantities.

### SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

### SARA 311/312 Hazardous Chemical

| Chemical Identity        | Threshold Planning Quantity |
|--------------------------|-----------------------------|
| Bisphenol A Polyglycidyl | 10000 lbs                   |
| Ether Resin              |                             |
| Octylphenoxypolyethoxy   | 10000 lbs                   |
| ethanol                  |                             |
| Benzyl alcohol           | 10000 lbs                   |

### SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) None present or none present in regulated quantities.
- Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

### **US State Regulations**

**US. California Proposition 65** 

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act No ingredient regulated by NJ Right-to-Know Law present.

### **US. Massachusetts RTK - Substance List**

Chemical Identity Benzyl alcohol

### US. Pennsylvania RTK - Hazardous Substances

#### Chemical Identity Benzyl alcohol

### US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.



# International regulations

# Montreal protocol

not applicable

# Stockholm convention

not applicable

### **Rotterdam convention**

not applicable

# Kyoto protocol

not applicable

**VOC:** When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 15 g/l

| Regulatory VOC (less water and | : | 27 g/l |
|--------------------------------|---|--------|
| exempt solvent)                |   |        |
| VOC Method 310                 | : | 1.42 % |



| Inventory Status:<br>Australia AICS:     | All components in this product are listed on or exempt from the Inventory.             |
|--|--|
| Canada DSL Inventory List:               | All components in this product are listed on or exempt from the Inventory.             |
| EINECS, ELINCS or NLP:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan (ENCS) List:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | All components in this product are listed on or exempt from the Inventory.             |
| Korea Existing Chemicals Inv. (KECI):    | All components in this product are listed on or exempt from the Inventory.             |
| Canada NDSL Inventory:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Philippines PICCS:                       | All components in this product are listed on or exempt from the Inventory.             |
| US TSCA Inventory:                       | All components in this product are listed on or exempt from the Inventory.             |
| New Zealand Inventory of Chemicals:      | All components in this product are listed on or exempt from the Inventory.             |
| Japan ISHL Listing:                      | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan Pharmacopoeia Listing:             | One or more components in this product are not listed on or exempt from the Inventory. |
| Mexico INSQ:                             | One or more components in this product are not listed on or exempt from the Inventory. |
| Ontario Inventory:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| Taiwan Chemical Substance Inventory:     | One or more components in this product are not listed on or exempt from the Inventory. |

# 16.Other information, including date of preparation or last revision



| Revision Date:       | 10/31/2017  |
|----------------------|---|
| Version #:           | 2.0   |
| Further Information: | No data available.  |
| Disclaimer:          | For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. |



Version: 2.0 Revision Date: 10/31/2017

# SAFETY DATA SHEET

### 1. Identification

Product identifier: DURALPREP AC PART B, DURALPREP AC PART B Product Code: TD2353899

#### Recommended use and restriction on use

Recommended use: Sealant Restrictions on use: Not known.

# Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY 19218 REDWOOD ROAD CLEVELAND OH 44110 US

### Contact person: Telephone: Emergency telephone number:

EH&S Department 216-531-9222 1-800-424-9300 (US); 1-613-996-6666 (Canada)

### 2. Hazard(s) identification

### **Hazard Classification**

#### Health Hazards

| Serious Eye Damage/Eye Irritation | Category 2A |
|-----------------------------------|-------------|
| Skin sensitizer                   | Category 1  |

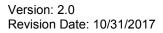
#### **Unknown toxicity - Health**

| Acute toxicity, oral                     | 45.06 % |
|--|---------|
| Acute toxicity, dermal                   | 46.71 % |
| Acute toxicity, inhalation, vapor        | 100 %   |
| Acute toxicity, inhalation, dust or mist | 99.99 % |

| Acute hazards to the aquatic   | 100 % |
|--------------------------------|-------|
| environment                    |       |
| Chronic hazards to the aquatic | 100 % |
| environment                    |       |

#### Label Elements

Hazard Symbol:





| Signal Word:                               | Warning  |
|--|--|
| Hazard Statement:                          | May cause an allergic skin reaction.<br>Causes serious eye irritation.   |
| Precautionary<br>Statements                |  |
| Prevention:                                | Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace.   |
| Response:                                  | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse. |
| Disposal:                                  | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.   |
| Hazard(s) not otherwise classified (HNOC): | None.  |

# 3. Composition/information on ingredients

### **Mixtures**

| Chemical Identity       | CAS number   | Content in percent (%)* |
|-------------------------|--------------|-------------------------|
| Trade Secret            | Trade Secret | 1 - <3%                 |
| Tetraethylene pentamine | 112-57-2     | 1 - <5%                 |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# 4. First-aid measures

| Ingestion:    | Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth.   |
|---------------|---|
| Inhalation:   | Move to fresh air.  |
| Skin Contact: | If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention. |



| Eye contact:   | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.  |
|--|---|
| Most important symptoms/effect   | s, acute and delayed  |
| Symptoms:  | No data available.  |
| Hazards:   | No data available.  |
| Indication of immediate medical  | attention and special treatment needed  |
| Treatment:   | No data available.  |
| 5. Fire-fighting measures  |   |
| General Fire Hazards:  | No unusual fire or explosion hazards noted.   |
| Suitable (and unsuitable) ex   | xtinguishing media  |
| Suitable extinguishing media:  | Use fire-extinguishing media appropriate for surrounding materials.   |
| Unsuitable extinguishing media:  | Do not use water jet as an extinguisher, as this will spread the fire.  |
| Specific hazards arising from the chemical:                                | During fire, gases hazardous to health may be formed.   |
| Special protective equipment an  | d precautions for firefighters  |
| Special fire fighting procedures:  | No data available.  |
| Special protective equipment for fire-fighters:                            | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |
| 6. Accidental release measures   | S   |
| Personal precautions,<br>protective equipment and<br>emergency procedures: | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. |
| Methods and material for<br>containment and cleaning<br>up:                | Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.               |

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.



| 7. Handling and storage   |  |
|---|--|
| Precautions for safe handling:                                      | Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.   |
| Conditions for safe storage,<br>including any<br>incompatibilities: | Store away from incompatible materials. Store in original tightly closed container.  |
| 8. Exposure controls/persona  | I protection   |
| Control Parameters  |  |
| Occupational Exposure Lim   | its  |
|   | None of the components have assigned exposure limits.<br>None of the components have assigned exposure limits.   |
| Appropriate Engineering<br>Controls                                 | Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.   |
| Individual protection measures,                                     | such as personal protective equipment  |
| General information:  | Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| Eye/face protection:  | Wear safety glasses with side shields (or goggles).  |
| Skin Protection<br>Hand Protection:                                 | Use suitable protective gloves if risk of skin contact.  |
| Other:  | Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.   |
| Respiratory Protection:   | In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.  |
| Hygiene measures:   | Avoid contact with eyes. Observe good industrial hygiene practices.<br>Contaminated work clothing should not be allowed out of the workplace.<br>Avoid contact with skin.  |

# 9. Physical and chemical properties

| Appearance      |        |       |
|-----------------|--------|-------|
| Physical state: | liquid |       |
| Form:           | liquid |       |
|                 |        | 18/43 |



| Color:   | Amber   |
|--|---|
| Odor:  | Mild  |
| Odor threshold:                                | No data available.  |
| pH:  | No data available.  |
| Melting point/freezing point:                  | No data available.  |
| Initial boiling point and boiling range:       | No data available.  |
| Flash Point:                                   | > 93 °C > 200 °F(Setaflash Closed Cup)  |
| Evaporation rate:                              | Slower than Ether   |
| Flammability (solid, gas):                     | No  |
| Upper/lower limit on flammability or explosive | /e limits   |
| Flammability limit - upper (%):                | No data available.  |
| Flammability limit - lower (%):                | No data available.  |
| Explosive limit - upper (%):                   | No data available.  |
| Explosive limit - lower (%):                   | No data available.  |
| Vapor pressure:                                | No data available.  |
| Vapor density:                                 | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| Relative density:                              | 0.99  |
| Solubility(ies)                                |   |
| Solubility in water:                           | Insoluble in water  |
| Solubility (other):                            | No data available.  |
| Partition coefficient (n-octanol/water):       | No data available.  |
| Auto-ignition temperature:                     | No data available.  |
| Decomposition temperature:                     | No data available.  |
| Viscosity:                                     | No data available.  |

# 10. Stability and reactivity

| Reactivity:                          | No data available.  |
|--------------------------------------|---|
| Chemical Stability:                  | Material is stable under normal conditions.   |
| Possibility of hazardous reactions:  | No data available.  |
| Conditions to avoid:                 | Avoid heat or contamination.  |
| Incompatible Materials:              | No data available.  |
| Hazardous Decomposition<br>Products: | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

11. Toxicological information

#### Information on likely routes of exposure Inhalation: In high

In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.



| Skin Contact:   | Causes mild skin irritation. May cause an allergic skin reaction.         |
|---|---|
| Eye contact:  | Causes serious eye irritation.  |
| Ingestion:  | May be ingested by accident. Ingestion may cause irritation and malaise.  |
| Symptoms related to the physica   | I, chemical and toxicological characteristics                             |
| Inhalation:   | No data available.  |
| Skin Contact:   | No data available.  |
| Eye contact:  | No data available.  |
| Ingestion:  | No data available.  |
| Information on toxicological effect                                     | cts   |
| Acute toxicity (list all possible                                       | routes of exposure)   |
| Oral<br>Product:  | ATEmix: 30,019.12 mg/kg   |
| Dermal<br>Product:  | ATEmix: 57,815.62 mg/kg   |
| Inhalation<br>Product:  | Not classified for acute toxicity based on available data.                |
| Specified substance(s):<br>Trade Secret                                 | LC 50 (Rat): > 0.74 mg/l  |
| Repeated dose toxicity<br>Product:                                      | No data available.  |
| Skin Corrosion/Irritation<br>Product:                                   | No data available.  |
| Specified substance(s):<br>Trade Secret                                 | in vivo (Rabbit): severely irritant Experimental result, Supporting study |
| Serious Eye Damage/Eye Irritatio<br>Product:<br>Specified substance(s): | on<br>No data available.  |
| Trade Secret  | Rabbit, 24 hrs: Corrosive   |
| Respiratory or Skin Sensitizatior                                       | 1   |



| Product:   | No data available.  |
|--|---|
| Carcinogenicity<br>Product:                                | No data available.  |
| IARC Monographs on the Evalu<br>No carcinogenic componer   | uation of Carcinogenic Risks to Humans:<br>hts identified |
| US. National Toxicology Progra<br>No carcinogenic componer | am (NTP) Report on Carcinogens:<br>ts identified          |
| US. OSHA Specifically Regulat<br>No carcinogenic componer  | ed Substances (29 CFR 1910.1001-1050):<br>Its identified  |
| Germ Cell Mutagenicity                                     |   |
| In vitro<br>Product:                                       | No data available.  |
| In vivo<br>Product:  | No data available.  |
| Reproductive toxicity<br>Product:                          | No data available.  |
| Specific Target Organ Toxicity<br>Product:                 | - Single Exposure<br>No data available.                   |
| Specific Target Organ Toxicity<br>Product:                 | - Repeated Exposure<br>No data available.                 |
| Aspiration Hazard<br>Product:                              | No data available.  |
| Other effects:   | No data available.  |

# 12. Ecological information

# Ecotoxicity:

Acute hazards to the aquatic environment:

Fish Product:

No data available.



| Aquatic Invertebrates<br>Product:                                    | No data available.  |  |  |
|--|---|--|--|
| Chronic hazards to the aquati  | Chronic hazards to the aquatic environment:   |  |  |
| Fish<br>Product:   | No data available.  |  |  |
| Aquatic Invertebrates<br>Product:                                    | No data available.  |  |  |
| Toxicity to Aquatic Plants<br>Product:                               | No data available.  |  |  |
| Persistence and Degradability  |   |  |  |
| Biodegradation<br>Product:   | No data available.  |  |  |
| BOD/COD Ratio<br>Product:  | No data available.  |  |  |
| Bioaccumulative potential<br>Bioconcentration Factor (BC<br>Product: | CF)<br>No data available.   |  |  |
| Partition Coefficient n-octanol / w<br>Product:                      | vater (log Kow)<br>No data available.   |  |  |
| Specified substance(s):<br>Tetraethylene pentamine                   | Log Kow: 1.503  |  |  |
| Mobility in soil:  | No data available.  |  |  |
| Other adverse effects:   | No data available.  |  |  |
| 13. Disposal considerations  |   |  |  |
| Disposal instructions:   | Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |  |  |
| Contaminated Packaging:  | No data available.  |  |  |



# 14. Transport information

### TDG:

Not Regulated

### CFR / DOT:

Not Regulated

### IMDG:

Not Regulated

### 15. Regulatory information

### **US Federal Regulations**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) None present or none present in regulated quantities.

### CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance None present or none present in regulated quantities.

# SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

### SARA 311/312 Hazardous Chemical

| Chemical Identity       | Threshold Planning Quantity |
|-------------------------|-----------------------------|
| Trade Secret            | 10000 lbs                   |
| Tetraethylene pentamine | 10000 lbs                   |

### SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) None present or none present in regulated quantities.
- Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.



### **US State Regulations**

- US. California Proposition 65 No ingredient regulated by CA Prop 65 present.
- US. New Jersey Worker and Community Right-to-Know Act <u>Chemical Identity</u> Tetraethylene pentamine

### **US. Massachusetts RTK - Substance List**

<u>Chemical Identity</u> Tetraethylene pentamine

## US. Pennsylvania RTK - Hazardous Substances

# **Chemical Identity**

Tetraethylene pentamine

# US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

### International regulations

### Montreal protocol

not applicable

### Stockholm convention

not applicable

### **Rotterdam convention**

not applicable

### Kyoto protocol

not applicable

**VOC:** When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 15 g/l

Regulatory VOC (less water and<br/>exempt solvent): 0 g/lVOC Method 310: 0.00 %



| Inventory Status:<br>Australia AICS:     | One or more components in this product are not listed on or exempt from the Inventory. |
|--|--|
| Canada DSL Inventory List:               | All components in this product are listed on or exempt from the Inventory.             |
| EINECS, ELINCS or NLP:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan (ENCS) List:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | One or more components in this product are not listed on or exempt from the Inventory. |
| Korea Existing Chemicals Inv. (KECI):    | One or more components in this product are not listed on or exempt from the Inventory. |
| Canada NDSL Inventory:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Philippines PICCS:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| US TSCA Inventory:                       | All components in this product are listed on or exempt from the Inventory.             |
| New Zealand Inventory of Chemicals:      | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan ISHL Listing:                      | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan Pharmacopoeia Listing:             | One or more components in this product are not listed on or exempt from the Inventory. |
| Mexico INSQ:                             | One or more components in this product are not listed on or exempt from the Inventory. |
| Ontario Inventory:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| Taiwan Chemical Substance Inventory:     | One or more components in this product are not listed on or exempt from the Inventory. |

# 16.Other information, including date of preparation or last revision



| Revision Date:       | 10/31/2017  |
|----------------------|---|
| Version #:           | 2.0   |
| Further Information: | No data available.  |
| Disclaimer:          | For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. |



Version: 2.0 Revision Date: 10/31/2017

# SAFETY DATA SHEET

### 1. Identification

Product identifier: DURALPREP AC PART C (BULK), DURALPREP AC PART C Product Code: TD2353899

### Recommended use and restriction on use

**Recommended use:** Cement, Portland, chemicals **Restrictions on use:** Not known.

# Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY 19218 REDWOOD ROAD CLEVELAND OH 44110 US

### Contact person: Telephone: Emergency telephone number:

EH&S Department 216-531-9222 1-800-424-9300 (US); 1-613-996-6666 (Canada)

### 2. Hazard(s) identification

### **Hazard Classification**

### Health Hazards

| Skin Corrosion/Irritation                             | Category 2               |
|---|--------------------------|
| Serious Eye Damage/Eye Irritation                     | Category 1               |
| Skin sensitizer                                       | Category 1               |
| Carcinogenicity                                       | Category 1A              |
| Specific Target Organ Toxicity -<br>Single Exposure   | Category 3 <sup>1.</sup> |
| Specific Target Organ Toxicity -<br>Repeated Exposure | Category 1 <sup>2.</sup> |

### **Target Organs**

1. Respiratory tract irritation.

2. Lung

### **Unknown toxicity - Health**

| Acute toxicity, oral                     | 93.57 % |
|--|---------|
| Acute toxicity, dermal                   | 94.72 % |
| Acute toxicity, inhalation, vapor        | 100 %   |
| Acute toxicity, inhalation, dust or mist | 100 %   |

Acute hazards to the aquatic 98.85 % environment



| Chronic hazards to the a environment       | aquatic 100 %  |
|--|--|
| Label Elements                             |  |
| Hazard Symbol:                             |  |
|  |  |
| Signal Word:                               | Danger   |
| Hazard Statement:                          | Causes skin irritation.<br>Causes serious eye damage.<br>May cause an allergic skin reaction.<br>May cause cancer.<br>May cause respiratory irritation.<br>Causes damage to organs through prolonged or repeated exposure.   |
| Precautionary<br>Statements                |  |
| Prevention:                                | Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. |
| Response:                                  | IF INHALED: Remove person to fresh air and keep comfortable for<br>breathing. IF IN EYES: Rinse cautiously with water for several minutes.<br>Remove contact lenses, if present and easy to do. Continue rinsing. IF ON<br>SKIN: Wash with plenty of water/ If skin irritation or rash occurs: Get<br>medical advice/attention. Immediately call a POISON CENTER/doctor/<br>Specific treatment (see this label). Wash contaminated clothing before<br>reuse.   |
| Storage:                                   | Store locked up. Store in a well-ventilated place. Keep container tightly closed.  |
| Disposal:                                  | Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.   |
| Hazard(s) not otherwise classified (HNOC): | None.  |

# 3. Composition/information on ingredients

# Mixtures



| Chemical Identity                           | CAS number | Content in percent (%)* |
|---|------------|-------------------------|
| Portland cement                             | 65997-15-1 | 50 - <100%              |
| Crystalline Silica (Quartz)/<br>Silica Sand | 14808-60-7 | 20 - <50%               |
| Fumed silica                                | 69012-64-2 | 1 - <5%                 |
| Calcium salt                                | 7778-18-9  | 1 - <5%                 |
| Calcium Carbonate<br>(Limestone)            | 1317-65-3  | 0.1 - <1%               |

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

| 4. First-aid measures                       |  |
|---|--|
| Ingestion:                                  | Call a POISON CENTER/doctor/ if you feel unwell. Rinse mouth.  |
| Inhalation:                                 | Move to fresh air.   |
| Skin Contact:                               | Get medical attention. Destroy or thoroughly clean contaminated shoes.<br>Immediately remove contaminated clothing and shoes and wash skin with<br>soap and plenty of water. If skin irritation or an allergic skin reaction<br>develops, get medical attention. |
| Eye contact:                                | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.   |
| Most important symptoms/effec               | ts, acute and delayed  |
| Symptoms:                                   | No data available.   |
| Hazards:                                    | No data available.   |
| Indication of immediate medical             | attention and special treatment needed   |
| Treatment:                                  | No data available.   |
| 5. Fire-fighting measures                   |  |
| General Fire Hazards:                       | No unusual fire or explosion hazards noted.  |
| Suitable (and unsuitable) e                 | extinguishing media  |
| Suitable extinguishing media:               | Use fire-extinguishing media appropriate for surrounding materials.  |
| Unsuitable extinguishing media:             | Do not use water jet as an extinguisher, as this will spread the fire.   |
| Specific hazards arising from the chemical: | During fire, gases hazardous to health may be formed.  |



| Special fire fighting procedures:  | No data available.  |  |
|--|---|--|
| Special protective equipment for fire-fighters:                            | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |  |
| 6. Accidental release measures   | 3   |  |
| Personal precautions,<br>protective equipment and<br>emergency procedures: | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.   |  |
| Methods and material for<br>containment and cleaning<br>up:                | Collect spillage in containers, seal securely and deliver for disposal according to local regulations.  |  |
| Notification Procedures:   | In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.   |  |
| Environmental Precautions:   | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.  |  |
| 7. Handling and storage  |   |  |
| Precautions for safe handling:   | Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. Wash hands thoroughly after handling. Avoid contact with skin. Avoid contact with eyes, skin, and clothing. |  |
| Conditions for safe storage,<br>including any<br>incompatibilities:        | Store locked up.  |  |

# 8. Exposure controls/personal protection

Special protective equipment and precautions for firefighters

### **Control Parameters**

### **Occupational Exposure Limits**

| Chemical Identity                      | Туре | Exposure Limit Values                                   | Source   |
|--|------|---|--|
| Portland cement - Respirable fraction. | TWA  | 1 mg/m3   | US. ACGIH Threshold Limit Values (2011)  |
| Portland cement - Total dust.          | PEL  | 15 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006) |
| Portland cement - Respirable fraction. | PEL  | 5 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006) |
| Portland cement                        | TWA  | 50 millions of<br>particles per<br>cubic foot of<br>air | US. OSHA Table Z-3 (29 CFR 1910.1000)<br>(2000)                                |
| Crystalline Silica (Quartz)/           | TWA  | 0.025 mg/m3   | US. ACGIH Threshold Limit Values (2011)  |



| Silica Sand - Respirable  |              |  |   |
|---|--------------|--|---|
| fraction.<br>Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust. | TWA          | 0.05 mg/m3   | US. OSHA Specifically Regulated Substances<br>(29 CFR 1910.1001-1053) (03 2016)                 |
| <u> </u>  | OSHA_AC<br>T | 0.025 mg/m3  | US. OSHA Specifically Regulated Substances<br>(29 CFR 1910.1001-1053) (03 2016)                 |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.              | PEL          | 0.05 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (03 2016)                  |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable.                   | TWA          | 2.4 millions<br>of particles<br>per cubic foot<br>of air | US. OSHA Table Z-3 (29 CFR 1910.1000)<br>(2000)   |
|   | TWA          | 0.1 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000)<br>(2000)   |
| Fumed silica  | TWA          | 20 millions of<br>particles per<br>cubic foot of<br>air  | US. ÓSHA Table Z-3 (29 CFR 1910.1000)<br>(2000)   |
|   | TWA          | 0.8 mg/m3  | US. OSHA Table Z-3 (29 CFR 1910.1000)<br>(2000)   |
| Calcium salt - Total  | REL          | 10 mg/m3   | US. NIOSH: Pocket Guide to Chemical<br>Hazards (2010)   |
| Calcium salt - Respirable.  | REL          | 5 mg/m3  | US. NIOSH: Pocket Guide to Chemical Hazards (2010)  |
| Calcium salt - Total dust.  | TWA          | 15 mg/m3   | US. OSHA Table Z-1-A (29 CFR 1910.1000)<br>(1989)   |
| Calcium salt - Respirable fraction.   | TWA          | 5 mg/m3  | US. OSHA Table Z-1-A (29 CFR 1910.1000)<br>(1989)   |
| Calcium salt - Total dust.  | TWA          | 15 mg/m3   | US. Tennessee. OELs. Occupational Exposure<br>Limits, Table Z1A (06 2008)                       |
| Calcium salt - Respirable fraction.   | TWA          | 5 mg/m3  | US. Tennessee. OELs. Occupational Exposure<br>Limits, Table Z1A (06 2008)                       |
| Calcium salt  | AN ESL       | 5 µg/m3  | US. Texas. Effects Screening Levels (Texas<br>Commission on Environmental Quality) (03<br>2014) |
|   | STESL        | 50 µg/m3   | US. Texas. Effects Screening Levels (Texas<br>Commission on Environmental Quality) (03<br>2014) |
| Calcium salt - Inhalable fraction.  | TWA          | 10 mg/m3   | US. ÁCGIH Threshold Limit Values (2011)   |
| Calcium salt - Total dust.  | PEL          | 15 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006)                  |
| Calcium salt - Respirable fraction.   | PEL          | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006)                  |
| Calcium Carbonate<br>(Limestone) - Total dust.                              | PEL          | 15 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006)                  |
| Calcium Carbonate<br>(Limestone) - Respirable<br>fraction.                  | PEL          | 5 mg/m3  | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006)                  |



| Chemical name   | Туре | Exposure Limit Values | Source   |
|---|------|-----------------------|--|
| Portland cement - Total dust.   | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Portland cement - Respirable fraction.                                | TWA  | 3 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Portland cement - Respirable fraction.                                | TWA  | 1 mg/m3               | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)   |
| Portland cement - Total dust.   | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Portland cement - Respirable dust.                                    | TWA  | 5 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.025 mg/m3           | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.10 mg/m3            | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents) (06 2015)  |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.        | TWA  | 0.1 mg/m3             | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Fumed silica - Total fume.  | TWA  | 4 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Fumed silica - Respirable fume.                                       | TWA  | 1.5 mg/m3             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Fumed silica - Respirable fraction.                                   | TWA  | 2 mg/m3               | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)   |
| Fumed silica - Respirable dust and/or fume.                           | TWA  | 2 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Calcium salt  | TWA  | 10 mg/m3              | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)  |
| Calcium salt - Inhalable  | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium salt - Inhalable fraction.                                    | TWA  | 10 mg/m3              | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)   |
| Calcium salt - Total dust.  | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Calcium salt - Respirable dust.                                       | TWA  | 5 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |



| Chemical name   | Туре | Exposure Limit Values | Source   |
|---|------|-----------------------|--|
| Portland cement - Total dust.   | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Portland cement - Respirable fraction.                                | TWA  | 3 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Portland cement - Respirable fraction.                                | TWA  | 1 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents) (06 2015)  |
| Portland cement - Total dust.   | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Portland cement - Respirable dust.                                    | TWA  | 5 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.025 mg/m3           | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable<br>fraction. | TWA  | 0.10 mg/m3            | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents) (06 2015)  |
| Crystalline Silica (Quartz)/<br>Silica Sand - Respirable dust.        | TWA  | 0.1 mg/m3             | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Fumed silica - Total fume.  | TWA  | 4 mg/m3               | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Fumed silica - Respirable fume.                                       | TWA  | 1.5 mg/m3             | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Fumed silica - Respirable fraction.                                   | TWA  | 2 mg/m3               | Canada. Ontario OELs. (Control of Exposure to<br>Biological or Chemical Agents) (06 2015)  |
| Fumed silica - Respirable dust and/or fume.                           | TWA  | 2 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Calcium salt  | TWA  | 10 mg/m3              | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)  |
| Calcium salt - Inhalable  | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium salt - Inhalable fraction.                                    | TWA  | 10 mg/m3              | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)   |
| Calcium salt - Total dust.  | TWA  | 10 mg/m3              | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Calcium salt - Respirable dust.                                       | TWA  | 5 mg/m3               | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Calcium Carbonate<br>(Limestone) - Total dust.                        | STEL | 20 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|   | TWA  | 10 mg/m3              | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |



| Calcium Carbonate<br>(Limestone) - Respirable<br>fraction.   | TWA  | 3 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
|--|------|-----------|--|
| Calcium Carbonate<br>(Limestone) - Total dust.               | TWA  | 10 mg/m3  | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Calcium oxide  | TWA  | 2 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Calcium oxide  | TWA  | 2 mg/m3   | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)   |
| Calcium oxide  | TWA  | 2 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Magnesium oxide -<br>Respirable dust and/or fume.<br>- as Mg | STEL | 10 mg/m3  | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Magnesium oxide - Inhalable<br>fume.                         | TWA  | 10 mg/m3  | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Magnesium oxide -<br>Respirable dust and/or fume.<br>- as Mg | TWA  | 3 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Magnesium oxide - Inhalable fraction.                        | TWA  | 10 mg/m3  | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)   |
| Magnesium oxide - Fume<br>as Mg                              | TWA  | 10 mg/m3  | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Clay - Respirable.   | TWA  | 2 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Clay - Respirable fraction.                                  | TWA  | 2 mg/m3   | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)   |
| Clay - Respirable dust.                                      | TWA  | 5 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |
| Amorphous silica - Total                                     | TWA  | 4 mg/m3   | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Amorphous silica -<br>Respirable.                            | TWA  | 1.5 mg/m3 | Canada. British Columbia OELs. (Occupational<br>Exposure Limits for Chemical Substances,<br>Occupational Health and Safety Regulation<br>296/97, as amended) (07 2007) |
| Amorphous silica -<br>Respirable dust.                       | TWA  | 6 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)   |

Appropriate Engineering Controls Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.



# Individual protection measures, such as personal protective equipment

| General information:                | Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
|-------------------------------------|--|
| Eye/face protection:                | Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.  |
| Skin Protection<br>Hand Protection: | Use suitable protective gloves if risk of skin contact.  |
| Other:                              | Wear chemical-resistant gloves, footwear, and protective clothing<br>appropriate for the risk of exposure. Contact health and safety professional<br>or manufacturer for specific information.   |
| Respiratory Protection:             | In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.  |
| Hygiene measures:                   | Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not get in eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.   |

# 9. Physical and chemical properties

| Appearance                                 |                    |
|--|--------------------|
| Physical state:                            | solid              |
| Form:                                      | Powder             |
| Color:                                     | Gray               |
| Odor:                                      | Odorless           |
| Odor threshold:                            | No data available. |
| pH:  | No data available. |
| Melting point/freezing point:              | No data available. |
| Initial boiling point and boiling range:   | No data available. |
| Flash Point:                               | No data available. |
| Evaporation rate:                          | No data available. |
| Flammability (solid, gas):                 | No                 |
| Upper/lower limit on flammability or explo | osive limits       |
| Flammability limit - upper (%):            | No data available. |
| Flammability limit - lower (%):            | No data available. |
| Explosive limit - upper (%):               | No data available. |
| Explosive limit - lower (%):               | No data available. |
| Vapor pressure:                            | No data available. |
| Vapor density:                             | No data available. |
| Relative density:                          | 3.5                |
|  |                    |



| Solubility(ies)                          |                      |
|--|----------------------|
| Solubility in water:                     | Miscible with water. |
| Solubility (other):                      | No data available.   |
| Partition coefficient (n-octanol/water): | No data available.   |
| Auto-ignition temperature:               | No data available.   |
| Decomposition temperature:               | No data available.   |
| Viscosity:                               | No data available.   |

# 10. Stability and reactivity

| Reactivity:                            | No data available.  |
|--|---|
| Chemical Stability:                    | Material is stable under normal conditions.   |
| Possibility of hazardous<br>reactions: | No data available.  |
| Conditions to avoid:                   | Avoid heat or contamination.  |
| Incompatible Materials:                | No data available.  |
| Hazardous Decomposition<br>Products:   | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |
|  |   |

# 11. Toxicological information

| Information on likely routes of e<br>Inhalation:                             | <b>xposure</b><br>In high concentrations, vapors, fumes or mists may irritate nose, throat and<br>mucus membranes. |  |
|--|--|--|
| Skin Contact:  | Causes skin irritation. May cause an allergic skin reaction.   |  |
| Eye contact:   | Causes serious eye damage.   |  |
| Ingestion:   | May be ingested by accident. Ingestion may cause irritation and malaise.   |  |
| Symptoms related to the physical, chemical and toxicological characteristics |  |  |
| Inhalation:  | No data available.   |  |

| Skin Contact: | No data available. |
|---------------|--------------------|
| Eye contact:  | No data available. |

Ingestion: No data available.

# Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:

ATEmix: 8,842.4 mg/kg



| Dermal<br>Product:   |                              | Not classified for acute toxicity based on available data.             |
|--|------------------------------|--|
| Inhalation<br>Product:   |                              |  |
| Repeated dose to<br>Product:                                       | xicity                       | No data available.   |
| Skin Corrosion/Irr<br>Product:                                     | itation                      | No data available.   |
| Serious Eye Dama<br>Product:                                       | age/Eye Irritatio            | on<br>No data available.   |
| Respiratory or Sk<br>Product:                                      | in Sensitizatio              | n<br>No data available.  |
| Carcinogenicity<br>Product:  |                              | No data available.   |
| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: |                              |  |
|  | alline Silica<br>tz)/ Silica | Overall evaluation: Carcinogenic to humans.                            |
|  | alline Silica<br>tz)/ Silica | <b>n (NTP) Report on Carcinogens:</b><br>Known To Be Human Carcinogen. |
|  |                              | d Substances (29 CFR 1910.1001-1050):                                  |
|  | alline Silica<br>tz)/ Silica | Cancer   |
| Germ Cell Mutage   | enicity                      |  |
| In vitro<br>Product:   |                              | No data available.   |
| In vivo<br>Product:  |                              | No data available.   |
| Reproductive toxi<br>Product:                                      | city                         | No data available.   |
| Specific Target Or   | rgan Toxicity -              | Single Exposure  |



| Product: |
|----------|
|----------|

No data available.

### Specific Target Organ Toxicity - Repeated Exposure Product:

No data available.

# **Target Organs**

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation. Specific Target Organ Toxicity - Repeated Exposure: Lung

| Aspiration Hazard |  |
|-------------------|--|
| Product:          |  |
|                   |  |

Other effects:

No data available.

No data available.

# 12. Ecological information

### **Ecotoxicity:**

| Acute hazards to the aquatic environment:   |                                       |  |
|---|---------------------------------------|--|
| Fish<br>Product:  | No data available.                    |  |
| Aquatic Invertebrates<br>Product:   | No data available.                    |  |
| Chronic hazards to the aquatic environment:   |                                       |  |
| Fish<br>Product:  | No data available.                    |  |
| Aquatic Invertebrates<br>Product:   | No data available.                    |  |
| Toxicity to Aquatic Plants<br>Product:  | No data available.                    |  |
| Persistence and Degradability   |                                       |  |
| Biodegradation<br>Product:  | No data available.                    |  |
| BOD/COD Ratio<br>Product:   | No data available.                    |  |
| Bioaccumulative potential<br>Bioconcentration Factor (BCF)<br>Product: No data available. |                                       |  |
| Partition Coefficient n-octanol /<br>Product:   | water (log Kow)<br>No data available. |  |



| Mobility in soil:           | No data available.  |
|-----------------------------|---|
| Other adverse effects:      | No data available.  |
| 13. Disposal considerations |   |
| Disposal instructions:      | Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| Contaminated Packaging:     | No data available.  |
| 14. Transport information   |   |
| TDG                         |   |

### TDG:

Not Regulated

# CFR / DOT:

Not Regulated

### IMDG:

Not Regulated

# 15. Regulatory information

### **US Federal Regulations**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) None present or none present in regulated quantities.

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

**Chemical Identity** 

# OSHA hazard(s)

**Crystalline Silica** (Quartz)/ Silica Sand kidney effects lung effects immune system effects

Cancer

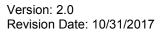
CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

# Superfund Amendments and Reauthorization Act of 1986 (SARA)

### **Hazard categories**

Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard





Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Skin sensitizer Carcinogenicity Specific Target Organ Toxicity - Single Exposure Specific Target Organ Toxicity - Repeated Exposure

### SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

#### SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

# SARA 311/312 Hazardous Chemical

| Chemical Identity                | Threshold Planning Quantity |
|----------------------------------|-----------------------------|
| Portland cement                  | 10000 lbs                   |
| Crystalline Silica (Quartz)/     | 10000 lbs                   |
| Silica Sand                      |                             |
| Fumed silica                     | 10000 lbs                   |
| Calcium salt                     | 10000 lbs                   |
| Calcium Carbonate<br>(Limestone) | 10000 lbs                   |

#### SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) None present or none present in regulated quantities.

#### Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

### **US State Regulations**

#### **US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Crystalline Silica (Quartz)/ Carcinogenic. 09 2011 Silica Sand

### US. New Jersey Worker and Community Right-to-Know Act

# Chemical Identity Portland cement

Crystalline Silica (Quartz)/ Silica Sand Fumed silica Calcium salt

### **US. Massachusetts RTK - Substance List**

#### Chemical Identity

Portland cement Crystalline Silica (Quartz)/ Silica Sand Fumed silica Calcium salt



### US. Pennsylvania RTK - Hazardous Substances

# Chemical Identity

Portland cement Crystalline Silica (Quartz)/ Silica Sand Fumed silica Calcium salt

## US. Rhode Island RTK

<u>Chemical Identity</u> Portland cement Crystalline Silica (Quartz)/ Silica Sand

# International regulations

# **Montreal protocol**

not applicable

# Stockholm convention

not applicable

# **Rotterdam convention**

not applicable

### Kyoto protocol

not applicable

# VOC:

| Regulatory VOC (less water and<br>exempt solvent) | : | 0 g/l  |
|---|---|--------|
| VOC Method 310                                    | : | 0.00 % |



| Inventory Status:<br>Australia AICS:     | One or more components in this product are not listed on or exempt from the Inventory. |
|--|--|
| Canada DSL Inventory List:               | All components in this product are listed on or exempt from the Inventory.             |
| EINECS, ELINCS or NLP:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan (ENCS) List:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| China Inv. Existing Chemical Substances: | One or more components in this product are not listed on or exempt from the Inventory. |
| Korea Existing Chemicals Inv. (KECI):    | One or more components in this product are not listed on or exempt from the Inventory. |
| Canada NDSL Inventory:                   | One or more components in this product are not listed on or exempt from the Inventory. |
| Philippines PICCS:                       | One or more components in this product are not listed on or exempt from the Inventory. |
| US TSCA Inventory:                       | All components in this product are listed on or exempt from the Inventory.             |
| New Zealand Inventory of Chemicals:      | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan ISHL Listing:                      | One or more components in this product are not listed on or exempt from the Inventory. |
| Japan Pharmacopoeia Listing:             | One or more components in this product are not listed on or exempt from the Inventory. |

# 16.Other information, including date of preparation or last revision

| Revision Date:       | 10/31/2017         |
|----------------------|--------------------|
| Version #:           | 2.0                |
| Further Information: | No data available. |



# Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.