SAFETY DATA SHEET

| 1. Identification | | |
|--------------------------------|---|---|
| Product identifier | DEVCON® Aluminum Putty (F) Resin | |
| Other means of identification | | |
| SKU# | 0102 | |
| Recommended use | Not available. | |
| Recommended restrictions | None known. | |
| Manufacturer/Importer/Supplier | /Distributor information | |
| Company name | ITW Performance Polymers | |
| Address | 35 Brownridge Rd | |
| | Unit 1 | |
| | Halton Hills, ON L7G 0C6 | |
| Contact person | Customer Service | |
| Telephone number | 978-777-1100 | |
| Fax | | |
| E-mail | | |
| Emergency telephone number | 800-424-9300 | |
| Supplier | Not available. | |
| 2. Hazard identification | | |
| Physical hazards | Not classified. | |
| Health hazards | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 2A |
| | Sensitization, skin | Category 1 |
| Environmental hazards | Not classified. | |
| Label elements | | |
| | | |
| Signal word | Warning | |
| Hazard statement | Causes skin irritation. May cause an allergic | skin reaction. Causes serious eye irritation. |
| Precautionary statement | | |
| Prevention | Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves. | |
| Response | IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. | |
| Storage | Store away from incompatible materials. | |
| Disposal | Dispose of contents/container in accordance | with local/regional/national/international regulations. |
| Other hazards | None known. | |
| Supplemental information | None. | |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Aluminum Flake | | 7429-90-5 | 40 - 70 |
| Epoxy Resin:reaction Product Of Bisphenol A And Epichlorohydrin (refer To Epichlorohydrin) | | 25068-38-6 | 15 - 40 |
| Calcium carbonate | | 1317-65-3 | 10 - 30 |
| Other components below reportable levels | | | 0.1 - 1 |

Other components below reportable levels

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

4. First-aid measures

| Move to fresh air. Call a physician if symptoms develop or persist. |
|---|
| Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse. |
| Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Rinse mouth. Get medical attention if symptoms occur. |
| Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. |
| Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. |
| |

5. Fire-fighting measures

| <u> </u> | | |
|---|--|--|
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). | |
| 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 and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. | |
| Fire fighting equipment/instructions | Use water spray to cool unopened containers. | |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. | |
| General fire hazards | No unusual fire or explosion hazards noted. | |
| 6. Accidental release measures | | |
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. | |
| Methods and materials for containment and cleaning up | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. | |
| | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. | |
| | | |

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. **Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

| 5 5 | |
|--|--|
| Precautions for safe handling | Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). |
| | |

| upational exposure limits | | | |
|---|---|--|---|
| US. ACGIH Threshold Limit V | alues | | |
| Components | Туре | Value | Form |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| | pational Health & Safety Code, Sch | | Form |
| Components | Туре | Value | |
| Aluminum Flake (CAS 7429-90-5) | TWA | 5 mg/m3 | Pyrophoric powder. |
| | | 10 mg/m3 | Dust. |
| Calcium carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | |
| Canada. British Columbia OE Safety Regulation 296/97, as | Ls. (Occupational Exposure Limits | for Chemical Substances, C | Occupational Health and |
| Components | Туре | Value | Form |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable. |
| Calcium carbonate (CAS 1317-65-3) | STEL | 20 mg/m3 | Total dust. |
| | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |
| Canada Manitaha OELa (Paa | 217/2006 The Werkplace Sefety | and Hoolth Act) | |
| Canada. Manifoba OELS (Reg Components | . 217/2006, The Workplace Safety A Type | Value | Form |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| Canada. Ontario OELs. (Cont Components | rol of Exposure to Biological or Ch Type | emical Agents) Value | Form |
| - | | | Deeniveble freetier |
| Aluminum Flake (CAS 7429-90-5) | TWA | 1 mg/m3 | Respirable fraction. |
| • | stry of Labor - Regulation respectin | • • | |
| Components | Туре | Value | Form |
| Aluminum Flake (CAS 7429-90-5) | TWA | 5 mg/m3 | Welding fume. |
| | | 10 mg/m3 | |
| Calcium carbonate (CAS 1317-65-3) | TWA | 10 mg/m3 | Total dust. |
| Canada. Saskatchewan OELs Components | (Occupational Health and Safety F Type | egulations, 1996, Table 21) Value | Form |
| Aluminum Flake (CAS | 15 minute | 20 mg/m3 | Dust. |
| 7429-90-5) | | 10 mg/m3 | Pyrophoric powder. |
| | 8 hour | 5 mg/m3 | Pyrophoric powder. |
| | | 10 mg/m3 | Dust. |
| Calcium carbonate (CAS | 15 minute | 20 mg/m3 | 2000 |
| 1317-65-3) | | | |
| | 8 hour | 10 mg/m3 | |
| ogical limit values | No biological exposure limits noted for | or the ingredient(s). | |
| | Good general ventilation should be u applicable, use process enclosures, maintain airborne levels below recorr established, maintain airborne levels | ocal exhaust ventilation, or ot mended exposure limits. If ex | her engineering controls to posure limits have not bee |

Individual protection measures, such as personal protective equipment

| Eye/face protection | Face shield is recommended. Wear safety glasses with side shields (or goggles). |
|---|--|
| Skin protection Hand protection | Wear appropriate chemical resistant gloves. |
| Other | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. |
| Respiratory protection Thermal hazards | In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. |

9. Physical and chemical properties

| or r nyoroar ana orionnoar | P P |
|--|---------------------------|
| Appearance | Paste. |
| Physical state | Solid. |
| Form | Paste. |
| Colour | Grey. |
| Odour | Slight. |
| Odour threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | 320 °C (608 °F) estimated |
| Flash point | > 204.4 °C (> 399.9 °F) |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or exp | losive limits |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit – upper (%) | Not available. |
| /apour pressure | Not available. |
| /apour density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| /iscosity | Not available. |
| Other information | |
| Density | 2.17 g/cm3 estimated |
| Explosive properties | Not explosive. |
| Oxidising properties | Not oxidising. |
| Specific gravity | 2.17 estimated |
| VOC | 0 g/l |
| | |

10. Stability and reactivity Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport. **Chemical stability** Material is stable under normal conditions. Possibility of hazardous No dangerous reaction known under conditions of normal use. reactions Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials. Incompatible materials Strong oxidising agents. No hazardous decomposition products are known. Hazardous decomposition products

11. Toxicological information

Information on likely routes of exposure

| information on likely routes of e | xposure | | |
|--|---|--|--|
| Inhalation | No adverse effects due to inhalation are expected. | | |
| Skin contact | Causes skin irritation. May cause an allergic skin reaction. | | |
| Eye contact | Causes serious eye irritation. | | |
| Ingestion | Expected to be a low ingestion hazard. | | |
| Symptoms related to the physical, chemical and toxicological characteristics | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. | | |
| Information on toxicological effe | ects | | |
| Acute toxicity | Not known. | | |
| Skin corrosion/irritation | Causes skin irritation. | | |
| Serious eye damage/eye irritation | Causes serious eye irritation. | | |
| Respiratory or skin sensitisation | ı | | |
| Canada - Alberta OELs: Irrit | ant | | |
| Aluminum Flake (CAS 74 Calcium carbonate (CAS | | Irritant Irritant | |
| Respiratory sensitisation | Not a respiratory sensitizer. | | |
| Skin sensitisation | May cause an allergic skin reaction. | | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | | |
| Carcinogenicity | | | |
| ACGIH Carcinogens | | | |
| Aluminum Flake (CAS 74 | | A4 Not classifiable as a human carcinogen. | |
| Canada - Manitoba OELs: ca | • • | | |
| Aluminum Flake (CAS 74 | , | Not classifiable as a human carcinogen. | |
| Reproductive toxicity | | to cause reproductive or developmental effects. | |
| Specific target organ toxicity - single exposure | Not classified. | | |
| Specific target organ toxicity - repeated exposure | Not classified. | | |
| Aspiration hazard | Not an aspiration hazard. | | |
| 12. Ecological information | 1 | | |
| Ecotoxicity | | as environmentally hazardous. However, this does not exclude the ent spills can have a harmful or damaging effect on the environment. | |
| Persistence and degradability | No data is available on the de | gradability of any ingredients in the mixture. | |
| Bioaccumulative potential | No data available. | | |
| Mobility in soil | No data available. | | |
| Other adverse effects | No other adverse environmer | tal effects (e.g. ozone depletion, photochemical ozone creation | |

potential, endocrine disruption, global warming potential) are expected from this component.

| Illect and reclaim or dispose in sealed containers at licensed wastentents/container in accordance with local/regional/national/internationation accordance with all applicable regulations. e waste code should be assigned in discussion between the user, posal company. spose of in accordance with local regulations. Empty containers or oduct residues. This material and its container must be disposed or sposal instructions). nee emptied containers may retain product residue, follow label wasten to an approved waste halposal. s. < | tional regulations. the producer and the waste liners may retain some of in a safe manner (see: arnings even after container is andling site for recycling or |
|---|---|
| e waste code should be assigned in discussion between the user, posal company. spose of in accordance with local regulations. Empty containers or oduct residues. This material and its container must be disposed o sposal instructions). the emptied containers may retain product residue, follow label was the applied. Empty containers should be taken to an approved waste has posal. | I liners may retain some of in a safe manner (see: arnings even after container is andling site for recycling or |
| apposal company. appose of in accordance with local regulations. Empty containers or object residues. This material and its container must be disposed of sposal instructions). ance emptied containers may retain product residue, follow label want the sposal. apposal. apposal. a. b. c. <lic.< li=""> c. c. c</lic.<> | I liners may retain some of in a safe manner (see: arnings even after container is andling site for recycling or |
| boduct residues. This material and its container must be disposed of sposal instructions). Ince emptied containers may retain product residue, follow label wan aptied. Empty containers should be taken to an approved waste hat posal. | of in a safe manner (see: arnings even after container is andling site for recycling or |
| Inplied. Empty containers should be taken to an approved waste hat posal. S. S. S. S. S. It applicable. Its product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) It Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | andling site for recycling or |
| s. t applicable. is product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| s. t applicable. is product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| s. t applicable. is product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| s. It applicable. is product has been classified in accordance with the hazard criter intains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| s. It applicable. is product has been classified in accordance with the hazard criter intains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| is product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| is product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| is product has been classified in accordance with the hazard criter ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| ntains all the information required by the HPR. es Act Schedule 3) ic Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | ria of the HPR and the SDS |
| Schedule 3) c Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | |
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| c Reduction Act, 2009. Regulation 455/09 (July 1, 2011) | |
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| | |
| 0-5) | |
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| | |
| | |
| | |
| | |
| ventory name | On inventory (yes/no) |
| - | No |
| | No |
| | Yes |
| | Yes |
| | No |
| ropean Inventory of Existing Commercial Chemical bstances (EINECS) | |
| | ventory name ustralian Inventory of Chemical Substances (AICS) omestic Substances List (DSL) on-Domestic Substances List (NDSL) ventory of Existing Chemical Substances in China (IECSC) uropean Inventory of Existing Commercial Chemical |

| Country(s) or region | Inventory name On inventory | (yes/no)* |
|-----------------------------------|---|-----------|
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |
| *A "Yes" indicates that all compo | nents of this product comply with the inventory requirements administered by the governing country(s) | |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

| 16. Other informat | ion |
|--------------------|---|
| Issue date | 29-May-2019 |
| Version No. | 01 |
| Disclaimer | ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. |

SAFETY DATA SHEET

| 1. Identification | | | | |
|--------------------------------|--|---|--|--|
| Product identifier | Putty Hardener | | | |
| Other means of identification | Other means of identification | | | |
| SKU# | 0200C | | | |
| Recommended use | Not available. | | | |
| Recommended restrictions | None known. | | | |
| Manufacturer/Importer/Supplier | r/Distributor information | | | |
| Company name | ITW Performance Polymers | | | |
| Address | 35 Brownridge Rd | | | |
| | Unit 1 | | | |
| | Halton Hills, ON L7G 0C6 | | | |
| Contact person | Customer Service | | | |
| Telephone number | 978-777-1100 | | | |
| Fax | | | | |
| E-mail | | | | |
| Emergency telephone number | 800-424-9300 | | | |
| Supplier | Not available. | | | |
| 2. Hazard identification | | | | |
| Physical hazards | Not classified. | | | |
| Health hazards | Acute toxicity, oral | Category 4 | | |
| | Acute toxicity, dermal | Category 4 | | |
| | Skin corrosion/irritation | Category 1 | | |
| | Serious eye damage/eye irritation | Category 1 | | |
| | Sensitization, skin | Category 1 | | |
| Environmental hazards | Not classified. | | | |
| Label elements | | | | |
| | | | | |
| Signal word | Danger | | | |
| Hazard statement | | Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. | | |
| Precautionary statement | | | | |
| Prevention | Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. | | | |
| Response | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 CENTRE/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. | | | |
| Storage | Store locked up. | | | |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. | | | |
| Other hazards | None known. | | | |

3. Composition/information on ingredients

| lixtures | | | |
|--|--------------------------|-------------|-----------|
| Chemical name | Common name and synonyms | CAS number | % |
| Aliphatic Amines | | N/A | 30 - 60 |
| Benzyl alcohol | | 100-51-6 | 15 - 40 |
| TRIETHYLENETETRAMINE | TETA | 112-24-3 | 15 - 40 |
| Silica, amorphous, fumed Silica, amorphous, fumed, crystfree | | 112945-52-5 | 7 - 13 |
| Titanium dioxide Titanium dioxide | | 13463-67-7 | 0.5 - 1.5 |
| Other components below reportable levels | | | 0.1 - 1 |

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

| 4. First-aid measures | | |
|--|--|--|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. | |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse. | |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately. | |
| Ingestion | Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. | |
| Most important symptoms/effects, acute and delayed | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. | |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed. | |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. | |
| | | |

5. Fire-fighting measures

| Suitable extinguishing media | Water spray. Alcohol resistant foam. Powder. Carbon dioxide (CO2). | |
|---|---|--|
| 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 and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. | |
| Fire fighting equipment/instructions | Use water spray to cool unopened containers. | |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. | |
| General fire hazards | No unusual fire or explosion hazards noted. | |

6. Accidental release measures

| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
|---|--|
| Methods and materials for containment and cleaning up | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. |
| | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. |
| | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |

| Environmental precautions | Avoid discharge into drains, wate | er courses or onto the ground. | |
|--|--|--|------------------------|
| 7. Handling and storage | | | |
| Precautions for safe handling Conditions for safe storage, including any incompatibilities | Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid breathing dust/fume/gas/mist/vapours/spray. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). | | |
| 8. Exposure controls/pers | , | | |
| Occupational exposure limits | • | | |
| US. ACGIH Threshold Limit Components | Values Type | Value | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |
| Canada. Alberta OELs (Occ Components | upational Health & Safety Code, Type | Schedule 1, Table 2) Value | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |
| | | mits for Chemical Substances, O | ccupational Health and |
| Safety Regulation 296/97, as Components | s amended) Type | Value | Form |
| Titanium dioxide (CAS 13463-67-7) | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |
| Canada. Manitoba OELs (Re Components | eg. 217/2006, The Workplace Safe Type | ety And Health Act) Value | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |
| Canada. Ontario OELs. (Cor Components | ntrol of Exposure to Biological of Type | r Chemical Agents) Value | |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | |
| TRIETHYLENETETRAMIN E (CAS 112-24-3) | TWA | 3 mg/m3 | |
| | | 0.5 ppm | |
| Canada. Quebec OELs. (Mir Components | nistry of Labor - Regulation respe Type | ecting occupational health and sa Value | afety) Form |
| Titanium dioxide (CAS 13463-67-7) | TWA | 10 mg/m3 | Total dust. |
| Canada. Saskatchewan OEI Components | Ls (Occupational Health and Safe Type | ety Regulations, 1996, Table 21) Value | |
| Titanium dioxide (CAS 13463-67-7) | 15 minute | 20 mg/m3 | |
| , | 8 hour | 10 mg/m3 | |
| Biological limit values | No biological exposure limits not | ed for the ingredient(s). | |
| Exposure guidelines | Occupational Exposure Limits are not relevant to the current physical form of the product. | | |
| Canada - Ontario OELs: Ski TRIETHYLENETETRAM | • | an be absorbed through the skin. | |
| Appropriate engineering controls | INE (CAS 112-24-3) Can be absorbed through the skin. Good general ventilation 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 wash facilities and emergency shower must be available when handling this product. | | |

Individual protection measures, such as personal protective equipment

| Eye/face protection | Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended. |
|---|---|
| Skin protection Hand protection | Wear appropriate chemical resistant gloves. |
| Other | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. |
| Respiratory protection Thermal hazards | In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. |

9. Physical and chemical properties

| Appearance | Paste. | | |
|--|------------------------------|--|--|
| Physical state | Solid. | | |
| Form | Paste. | | |
| Colour | White | | |
| Odour | Ammoniacal. | | |
| Odour threshold | ot available. | | |
| рН | Not available. | | |
| Melting point/freezing point | -15.2 °C (4.64 °F) estimated | | |
| Initial boiling point and boiling range | 216 °C (420.8 °F) estimated | | |
| Flash point | > 93.3 °C (> 199.9 °F) | | |
| Evaporation rate | Not available. | | |
| Flammability (solid, gas) | Not available. | | |
| Upper/lower flammability or exp | losive limits | | |
| Flammability limit - lower (%) | Not available. | | |
| Flammability limit - upper (%) | Not available. | | |
| Explosive limit - lower (%) | Not available. | | |
| Explosive limit – upper (%) | Not available. | | |
| Vapour pressure | 5.73 hPa estimated | | |
| Vapour density | Not available. | | |
| Relative density | Not available. | | |
| Solubility(ies) | | | |
| Solubility (water) | Not available. | | |
| Partition coefficient (n-octanol/water) | Not available. | | |
| Auto-ignition temperature | 337.78 °C (640 °F) estimated | | |
| Decomposition temperature | Not available. | | |
| Viscosity | Not available. | | |
| Other information | | | |
| Density | 1.00 g/cm3 estimated | | |
| Explosive properties | Not explosive. | | |
| Oxidising properties | Not oxidising. | | |
| Specific gravity | 1 estimated | | |
| 10. Stability and reactivity | · | | |
| | | | |

Reactivity

| Chemical stability | Material is stable under normal conditions. |
|---------------------------------------|--|
| Possibility of hazardous reactions | Hazardous polymerisation does not occur. |
| Conditions to avoid | Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Peroxides. Phenols. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

| Information on likely routes of exposure | | | |
|--|---|--|--|
| Inhalation | May cause irritation to the respiratory system. | | |
| Skin contact | Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction. | | |
| Eye contact | Causes serious eye damage. | | |
| Ingestion | Causes digestive tract burns. Harmful if swallowed. | | |
| Symptoms related to the physical, chemical and toxicological characteristics | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. | | |

Information on toxicological effects

Acute toxicity

| Harmful in contact with skir | n. Harmful if swallowed. |
|------------------------------|--------------------------|
|------------------------------|--------------------------|

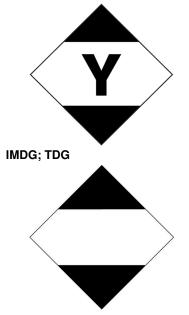
| Components | Species | Test Results | |
|--------------------------------------|---|---|--|
| Benzyl alcohol (CAS 100-51-6) | | | |
| Acute | | | |
| Dermal | | | |
| LD50 | Rabbit | 2000 mg/kg | |
| Inhalation | | | |
| LC50 | Rat | 1000 mg/l, 8 Hours | |
| Silica, amorphous, fumed (CAS | 112945-52-5) | | |
| <u>Acute</u> | | | |
| Oral | | | |
| LD50 | Rat | > 22500 mg/kg | |
| TRIETHYLENETETRAMINE (CA | AS 112-24-3) | | |
| <u>Acute</u> | | | |
| Dermal | | | |
| Liquid | - | | |
| LD50 | Rat | 1465 mg/kg | |
| Oral | | | |
| Liquid | Det | | |
| LD50 | Rat | 1716 mg/kg | |
| Skin corrosion/irritation | Causes severe skin bu | | |
| Serious eye damage/eye irritation | Causes serious eye damage. | | |
| Respiratory or skin sensitisati | on | | |
| Canada - Alberta OELs: In | ritant | | |
| Titanium dioxide (CAS | 13463-67-7) | Irritant | |
| Respiratory sensitisation | Due to partial or comple | ete lack of data the classification is not possible. | |
| Skin sensitisation | May cause an allergic skin reaction. | | |
| Germ cell mutagenicity | Due to partial or comple | Due to partial or complete lack of data the classification is not possible. | |
| Carcinogenicity | Due to partial or complete lack of data the classification is not possible. | | |
| ACGIH Carcinogens | | | |
| Titanium dioxide (CAS | | A4 Not classifiable as a human carcinogen. | |
| Canada - Manitoba OELs: | • • | | |
| Titanium dioxide (CAS 13463-67-7) | | Not classifiable as a human carcinogen. | |

| IARC Monographs Overall F | valuation of Carcinogenicity | |
|---|--|--|
| Silica, amorphous, fumed | | |
| Titanium dioxide (CAS 13 | | 2B Possibly carcinogenic to humans. |
| Reproductive toxicity | Due to partial or complete lack | of data the classification is not possible. |
| Specific target organ toxicity - single exposure | Due to partial or complete lack of data the classification is not possible. | |
| Specific target organ toxicity - repeated exposure | Due to partial or complete lack of data the classification is not possible. | |
| Aspiration hazard | Due to partial or complete lack of data the classification is not possible. | |
| 12. Ecological information | 1 | |
| Ecotoxicity | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. | |
| Persistence and degradability | No data is available on the deg | gradability of any ingredients in the mixture. |
| Bioaccumulative potential | | |
| Partition coefficient n-octand Benzyl alcohol | ol / water (log Kow) 1.1 | |
| Mobility in soil | No data available. | |
| Other adverse effects | | al effects (e.g. ozone depletion, photochemical ozone creation , global warming potential) are expected from this component. |
| 13. Disposal consideration | าร | |
| Disposal instructions | | in sealed containers at licensed waste disposal site. Dispose of new with local/regional/national/international regulations. |
| Local disposal regulations | Dispose in accordance with all | applicable regulations. |
| Hazardous waste code | The waste code should be ass disposal company. | igned in discussion between the user, the producer and the waste |
| Waste from residues / unused products | | local regulations. Empty containers or liners may retain some I and its container must be disposed of in a safe manner (see: |
| Contaminated packaging | | retain product residue, follow label warnings even after container is buld be taken to an approved waste handling site for recycling or |
| 14. Transport information | | |
| TDG | | |
| UN number | UN3259 | |
| UN proper shipping name | | E, N.O.S. (TRIETHYLENETETRAMINE, Aliphatic Amines), Limited |
| Transport hazard class(es) | | |
| Class Subsidiary risk | 8 | |
| Packing group | | |
| Environmental hazards | Not available. | |
| Special precautions for user | Read safety instructions, SDS | and emergency procedures before handling. |
| UN number | UN3259 | |
| UN proper shipping name Transport hazard class(es) | Amines, solid, corrosive, n.o.s. | . (TRIETHYLENETETRAMINE, Aliphatic Amines), Limited Quantity |
| Class | 8 | |
| Subsidiary risk | - | |
| Packing group Environmental hazards ERG Code | No. 8L | |
| | - | and emergency procedures before handling. |
| Passenger and cargo aircraft | Allowed with restrictions. | |
| Cargo aircraft only | Allowed with restrictions. | |

IMDG

| UN number UN proper shipping name | UN3259 AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE, Aliphatic Amines), Limited Quantity |
|--|--|
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Packing group | |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | F-A, S-B |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| | |

ΙΑΤΑ



15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated. Export Control List (CEPA 1999, Schedule 3) Not listed. **Greenhouse Gases** Not listed. **Precursor Control Regulations** Not regulated. International regulations **Stockholm Convention** Not applicable. **Rotterdam Convention** Not applicable. **Kyoto Protocol** Not applicable. **Montreal Protocol** Not applicable.

Basel Convention

Not applicable.

International Inventories

| Country(s) or region | Inventory name On inventory (y | yes/no)* |
|-----------------------------------|---|----------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |
| *A "Yes" indicates that all compo | nents of this product comply with the inventory requirements administered by the governing country(s) | |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

| 16. Othe | r information |
|----------|---------------|
|----------|---------------|

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|---------------|---|
| Revision date | 01-May-2020 |
| Version No. | 03 |
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