



# Masters® Pro-Blue® Pipe Thread Sealant

Oatey

Version No:1.6

Safety Data Sheet according to WHMIS 2015 requirements

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S.GHS.CAN.EN

## SECTION 1 Identification

### Product Identifier

|                               |  |
|-------------------------------|--|
| Product name                  | Masters® Pro-Blue® Pipe Thread Sealant                 |
| Synonyms                      | Not Available  |
| Proper shipping name          | SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. Isopropanol |
| Other means of identification | PB250BT, PB500BT                                       |

### Recommended use of the chemical and restrictions on use

|                          |  |
|--------------------------|--|
| Relevant identified uses | Pipe Joint Compound for Threaded Metal Pipes |
|--------------------------|--|

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

|                         |   |
|-------------------------|---|
| Registered company name | Oatey   |
| Address                 | 620 Steven Court, New Market, ON L3Y 622 Canada |
| Telephone               | 905-898-2557                                    |
| Fax                     | Not Available                                   |
| Website                 | Not Available                                   |
| Email                   | info@oatey.com                                  |

### Emergency phone number

|                                   |  |
|-----------------------------------|--|
| Association / Organisation        | ChemTrec                                       |
| Emergency telephone numbers       | 1-800-424-9300 (Outside the US 1-703-527-3887) |
| Other emergency telephone numbers | Emergency First Aid: 1-877-740-5015            |

## SECTION 2 Hazard(s) identification

### Classification of the substance or mixture

|                |  |
|----------------|--|
| Classification | Serious Eye Damage/Eye Irritation Category 2A, Skin Corrosion/Irritation Category 2, Carcinogenicity Category 1A, Specific Target Organ Toxicity - Repeated Exposure Category 1, Flammable Solids Category 1 |
|----------------|--|

### Label elements

|                     |  |
|---------------------|--|
| Hazard pictogram(s) |  |
|---------------------|--|

|             |        |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|

## Masters® Pro-Blue® Pipe Thread Sealant

### Hazard statement(s)

|      |   |
|------|---|
| H319 | Causes serious eye irritation.                                  |
| H315 | Causes skin irritation.   |
| H350 | May cause cancer.   |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H228 | Flammable solid.  |

### Physical and Health hazard(s) not otherwise classified

Not Applicable

### Precautionary statement(s) Prevention

|      |   |
|------|---|
| P201 | Obtain special instructions before use.   |
| P202 | Do not handle until all safety precautions have been read and understood.         |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking.                |
| P260 | Do not breathe dust/fume.   |
| P264 | Wash thoroughly after handling.   |
| P240 | Ground/bond container and receiving equipment.                                    |
| P241 | Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment. |
| P270 | Do not eat, drink or smoke when using this product.                               |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection.        |

### Precautionary statement(s) Response

|                |  |
|----------------|--|
| P308+P313      | IF exposed or concerned: Get medical advice/attention.   |
| P321           | Specific treatment (see advice on this label).   |
| P362+P364      | Take off contaminated clothing and wash before reuse.  |
| P370+P378      | In case of fire: Use water jets for extinction.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P314           | Get medical advice/attention if you feel unwell.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |

### Precautionary statement(s) Storage

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

### Precautionary statement(s) Disposal

|      |  |
|------|--|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|--|

## SECTION 3 Composition / information on ingredients

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No      | %[weight] | Name                               |
|-------------|-----------|------------------------------------|
| 14807-96-6* | 34        | <u>Talc</u>                        |
| 1332-58-7*  | 20        | <u>Kaolin</u>                      |
| 13463-67-7* | 4.6       | <u>Titanium dioxide</u>            |
| 13983-17-0* | 4.4       | <u>Calcium silicate</u>            |
| 9002-84-0   | 1         | <u>polytetrafluoroethylene</u>     |
| 9004-34-6*  | 0.7       | <u>cellulose</u>                   |
| 14808-60-7* | <=2       | <u>silica crystalline - quartz</u> |

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| CAS No    | %[weight] | Name   |
|-----------|-----------|--|
| 5131-66-8 | 10        | <u>propylene glycol monobutyl ether - alpha isomer</u> |
| 67-63-0   | 7         | <u>isopropanol</u>                                     |

## SECTION 4 First-aid measures

## Description of first aid measures

|                     |   |
|---------------------|---|
| <b>Eye Contact</b>  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| <b>Skin Contact</b> | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>   |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>   |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>   |

## Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 Fire-fighting measures

## Extinguishing media

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

For **SMALL FIRES**:

Dry chemical, CO<sub>2</sub>, water spray or foam.

For **LARGE FIRES**:

Water-spray, fog or foam.

## Special hazards arising from the substrate or mixture

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul> |
|-----------------------------|--|

## Special protective equipment and precautions for fire-fighters

|                              |   |
|------------------------------|---|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Fight fire from a safe distance, with adequate cover.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Flammable solid which burns and propagates flame easily, even when partly wetted with water.</li> <li>▶ Any source of ignition, i.e. friction, heat, sparks or flame, may cause fire or explosion.</li> <li>▶ May burn fiercely</li> <li>▶ May form explosive mixtures with air.</li> <li>▶ May <b>REIGNITE</b> after fire is extinguished.</li> <li>▶ Containers may explode on heating.</li> <li>▶ Solids may melt and flow when heated or involved in a fire.</li> </ul>  |

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- ▶ Runoff may pollute waterways.
  - ▶ Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust may burn rapidly and fiercely if ignited.
  - ▶ Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport, thereby providing a source of ignition.
  - ▶ Decomposition products may be irritating, poisonous or corrosive.
- Combustion products include:  
 carbon monoxide (CO)  
 carbon dioxide (CO<sub>2</sub>)  
 other pyrolysis products typical of burning organic material.

### SECTION 6 Accidental release measures

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

See section 8

#### Environmental precautions

See section 12

#### Methods and material for containment and cleaning up

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ <b>DO NOT</b> touch or walk through spilled material.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid contact with skin and eyes.</li> <li>▶ With clean shovel (preferably non-sparking) place material into clean, dry container and cover loosely.</li> <li>▶ Move containers from spill area.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> </ul>   |
| <b>Major Spills</b> | <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ <b>DO NOT</b> touch or walk through spilled material.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain or cover with sand, earth or vermiculite.</li> <li>▶ Use only spark-free shovels and explosion proof equipment.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area with water and dike for later disposal; prevent runoff into drains.</li> <li>▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

### SECTION 7 Handling and storage

#### Precautions for safe handling

|                      |   |
|----------------------|---|
| <b>Safe handling</b> | <ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of overexposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT</b> enter confined spaces until atmosphere has been checked.</li> <li>▶ <b>DO NOT</b> allow material to contact humans, exposed food or food utensils.</li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ When handling, <b>DO NOT</b> eat, drink or smoke.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Working clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are</li> </ul> |
|----------------------|---|

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## Masters® Pro-Blue® Pipe Thread Sealant

|                          |  |
|--------------------------|--|
|                          | maintained.  |
| <b>Other information</b> | <p><b>FOR MINOR QUANTITIES:</b></p> <ul style="list-style-type: none"> <li>▶ Store in an indoor fireproof cabinet or in a room of noncombustible construction.</li> <li>▶ Provide adequate portable fire-extinguishers in or near the storage area.</li> </ul> <p><b>FOR PACKAGE STORAGE:</b></p> <ul style="list-style-type: none"> <li>▶ Store in original containers in approved flame-proof area.</li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> <li>▶ <b>DO NOT</b> store in pits, depressions, basements or areas where vapours may be trapped.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store away from incompatible materials in a cool, dry, well ventilated area.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Protect containers from exposure to weather and from direct sunlight unless: (a) the packages are of metal or plastic construction; (b) the packages are securely closed are not opened for any purpose while in the area where they are stored and (c) adequate precautions are taken to ensure that rain water, which might become contaminated by the dangerous goods, is collected and disposed of safely.</li> <li>▶ Ensure proper stock-control measures are maintained to prevent prolonged storage of dangerous goods.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul> |

## Conditions for safe storage, including any incompatibilities

|                                |  |
|--------------------------------|--|
| <b>Suitable container</b>      | <p>For low viscosity materials and solids:<br/>Drums and jerricans must be of the non-removable head type.<br/>Where a can is to be used as an inner package, the can must have a screwed enclosure.<br/>For materials with a viscosity of at least 2680 cSt. (23 deg. C):</p> <ul style="list-style-type: none"> <li>▶ Removable head packaging and</li> <li>▶ cans with friction closures may be used.</li> </ul> <p>-</p> <p>Where combination packages are used, there must be sufficient inert absorbent material to absorb completely any leakage that may occur, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.<br/>All combination packages for Packing group I and II must contain cushioning material.</p>  |
| <b>Storage incompatibility</b> | <p>Isopropanol (syn: isopropyl alcohol, IPA):</p> <ul style="list-style-type: none"> <li>▶ forms ketones and unstable peroxides on contact with air or oxygen; the presence of ketones especially methyl ethyl ketone (MEK, 2-butanone) will accelerate the rate of peroxidation</li> <li>▶ reacts violently with strong oxidisers, powdered aluminium (exothermic), crotonaldehyde, diethyl aluminium bromide (ignition), dioxygenyl tetrafluoroborate (ignition/ ambient temperature), chromium trioxide (ignition), potassium-tert-butoxide (ignition), nitroform (possible explosion), oleum (pressure increased in closed container), cobalt chloride, aluminium triisopropoxide, hydrogen plus palladium dust (ignition), oxygen gas, phosgene, phosgene plus iron salts (possible explosion), sodium dichromate plus sulfuric acid (exothermic/ incandescence), triisobutyl aluminium</li> <li>▶ reacts with phosphorus trichloride forming hydrogen chloride gas</li> <li>▶ reacts, possibly violently, with alkaline earth and alkali metals, strong acids, strong caustics, acid anhydrides, halogens, aliphatic amines, aluminium isopropoxide, isocyanates, acetaldehyde, barium perchlorate (forms highly explosive perchloric ester compound), benzoyl peroxide, chromic acid, dialkylzincs, dichlorine oxide, ethylene oxide (possible explosion), hexamethylene diisocyanate (possible explosion), hydrogen peroxide (forms explosive compound), hypochlorous acid, isopropyl chlorocarbonate, lithium aluminium hydride, lithium tetrahydroaluminate, nitric acid, nitrogen dioxide, nitrogen tetraoxide (possible explosion), pentafluoroguanidine, perchloric acid (especially hot), permonosulfuric acid, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium, trinitromethane</li> <li>▶ attacks some plastics, rubber and coatings</li> <li>▶ reacts with metallic aluminium at high temperature</li> <li>▶ may generate electrostatic charges</li> </ul> <p>Alcohols</p> <ul style="list-style-type: none"> <li>▶ are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.</li> <li>▶ reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen</li> <li>▶ react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium</li> <li>▶ should not be heated above 49 deg. C. when in contact with aluminium equipment</li> </ul> |

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source                | Ingredient | Material name      | TWA     | STEL | Peak | Notes         |
|-----------------------|------------|--------------------|---------|------|------|---------------|
| Canada - Saskatchewan | Talc       | Talc, (respirable) | 2 mg/m3 | Not  | Not  | Not Available |

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| Source  | Ingredient | Material name  | TWA     | STEL          | Peak          | Notes  |
|---|------------|--|---------|---------------|---------------|--|
| Occupational Health and Safety Regulations - Contamination Limits     |            | fraction++ )   |         | Available     | Available     |  |
| Canada - Manitoba Occupational Exposure Limits                        | Talc       | Not Available  | 2 mg/m3 | Not Available | Not Available | TLV® Basis: Pulm fibrosis; pulm func   |
| Canada - Prince Edward Island Occupational Exposure Limits            | Talc       | Talc - Containing no asbestos fibers                               | 2 mg/m3 | Not Available | Not Available | TLV® Basis: Pulm fibrosis; pulm func   |
| Canada - British Columbia Occupational Exposure Limits                | Talc       | Talc - Containing no asbestos fibres, Respirable                   | 2 mg/m3 | Not Available | Not Available | (E) - the value is for particulate matter containing no asbestos and less than 1% crystalline silica.  |
| Canada - Ontario Occupational Exposure Limits                         | Talc       | Talc, containing no asbestos                                       | 2 f/cc  | Not Available | Not Available | (K) Should not exceed 2 mg/m3 respirable particulate mass.   |
| Canada - Ontario Occupational Exposure Limits                         | Talc       | Talc, containing no asbestos (Respirable fraction)                 | 2 mg/m3 | Not Available | Not Available | (R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. (E) The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica. |
| Canada - Nova Scotia Occupational Exposure Limits                     | Talc       | Soapstone  | 6 mg/m3 | Not Available | Not Available | TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.  |
| Canada - Nova Scotia Occupational Exposure Limits                     | Talc       | Soapstone  | 3 mg/m3 | Not Available | Not Available | TLV Basis: lower respiratory tract irritation. Particulate matter containing no asbestos and < 1% crystalline silica.  |
| Canada - Nova Scotia Occupational Exposure Limits                     | Talc       | Talc - Containing no asbestos fibers                               | 2 mg/m3 | Not Available | Not Available | TLV Basis: lower respiratory tract irritation  |
| Canada - Alberta Occupational Exposure Limits                         | Talc       | Soapstone: Total (no asbestos and less than 1% crystalline silica) | 6 mg/m3 | Not Available | Not Available | 3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.  |
| Canada - Alberta Occupational Exposure Limits                         | Talc       | Soapstone: Respirable  | 3 mg/m3 | Not Available | Not Available | 3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.  |
| Canada - Alberta Occupational Exposure Limits                         | Talc       | Talc: Respirable particulate containing no asbestos fibres         | 2 mg/m3 | Not Available | Not Available | Not Available  |
| Canada - Northwest Territories Occupational Exposure Limits           | Talc       | Talc, (respirable fraction)  | 2 mg/m3 | Not Available | Not Available | Not Available  |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants | Talc       | Talc, non fibrous - Respirable dust                                | 2 mg/m3 | Not Available | Not Available | Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.  |

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| Source   | Ingredient | Material name  | TWA              | STEL             | Peak             | Notes  |
|--|------------|--|------------------|------------------|------------------|--|
| Canada - Quebec<br>Permissible Exposure Values<br>for Airborne Contaminants                      | Talc       | Talc, fibrous (note 4)   | 1 f/cc           | Not<br>Available | Not<br>Available | C1: carcinogenic effect detected<br>in humans EM: A substance to<br>which exposure must be<br>reduced to a minimum Note 4:<br>Permissible exposure values in<br>number of respirable fibres per<br>cm3   |
| Canada - Yukon Permissible<br>Concentrations for Airborne<br>Contaminant Substances              | Kaolin     | Kaolin   | Not<br>Available | Not<br>Available | Not<br>Available | (See Table 11)   |
| Canada - Saskatchewan<br>Occupational Health and<br>Safety Regulations -<br>Contamination Limits | Kaolin     | Kaolin (respirable<br>fraction++) )  | 2 mg/m3          | 4 mg/m3          | Not<br>Available | Not Available  |
| Canada - Manitoba<br>Occupational Exposure<br>Limits   | Kaolin     | Not Available  | 2 mg/m3          | Not<br>Available | Not<br>Available | TLV® Basis: Pneumoconiosis   |
| Canada - Prince Edward<br>Island Occupational<br>Exposure Limits                                 | Kaolin     | Kaolin   | 2 mg/m3          | Not<br>Available | Not<br>Available | TLV® Basis: Pneumoconiosis   |
| Canada - British Columbia<br>Occupational Exposure<br>Limits                                     | Kaolin     | Kaolin, Respirable   | 2 mg/m3          | Not<br>Available | Not<br>Available | (E) - the value is for particulate<br>matter containing no asbestos<br>and less than 1% crystalline<br>silica.   |
| Canada - Ontario<br>Occupational Exposure<br>Limits  | Kaolin     | Particles (Insoluble or<br>Poorly Soluble) Not<br>Otherwise Specified<br>(PNOS) (Inhalable<br>fraction)  | 10<br>mg/m3      | Not<br>Available | Not<br>Available | (I) Inhalable fraction: means that<br>size fraction of the airborne<br>particulate deposited anywhere<br>in the respiratory tract and<br>collected during air sampling<br>with a particle size-selective<br>device that, (a) meets the<br>ACGIH particle size-selective<br>sampling criteria for airborne<br>particulate matter; and (b) has<br>the cut point of 100 µm at 50 per<br>cent collection efficiency.                     |
| Canada - Ontario<br>Occupational Exposure<br>Limits  | Kaolin     | Particles (Insoluble or<br>Poorly Soluble) Not<br>Otherwise Specified<br>(PNOS) (Respirable<br>fraction) | 3 mg/m3          | Not<br>Available | Not<br>Available | (R) Respirable fraction: means<br>that size fraction of the airborne<br>particulate deposited in the<br>gas-exchange region of the<br>respiratory tract and collected<br>during air sampling with a<br>particle size-selective device<br>that, (a) meets the ACGIH<br>particle size-selective sampling<br>criteria for airborne particulate<br>matter; and (b) has the cut point<br>of 4 µm at 50 per cent collection<br>efficiency. |
| Canada - Nova Scotia<br>Occupational Exposure<br>Limits  | Kaolin     | Kaolin   | 2 mg/m3          | Not<br>Available | Not<br>Available | TLV Basis: pneumoconiosis.<br>Value is for particulate matter<br>containing no asbestos and <1%<br>crystalline silica.   |
| Canada - Alberta<br>Occupational Exposure<br>Limits  | Kaolin     | Kaolin respirable  | 2 mg/m3          | Not<br>Available | Not<br>Available | Not Available  |
| Canada - Northwest<br>Territories Occupational<br>Exposure Limits                                | Kaolin     | Kaolin (respirable<br>fraction)  | 2 mg/m3          | 4 mg/m3          | Not<br>Available | Not Available  |
| Canada - Quebec<br>Permissible Exposure Values<br>for Airborne Contaminants                      | Kaolin     | Kaolin - Respirable dust   | 2 mg/m3          | Not<br>Available | Not<br>Available | Note 1: The standard<br>corresponds to dust containing<br>no asbestos and the percentage<br>in crystalline silica is less than<br>1%.  |

## Masters® Pro-Blue® Pipe Thread Sealant

| Source  | Ingredient       | Material name  | TWA      | STEL          | Peak          | Notes  |
|---|------------------|--|----------|---------------|---------------|--|
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | Titanium dioxide | Titanium dioxide   | 10 mg/m3 | 20 mg/m3      | Not Available | Not Available  |
| Canada - Manitoba Occupational Exposure Limits  | Titanium dioxide | Not Available  | 10 mg/m3 | Not Available | Not Available | TLV® Basis: LRT irr  |
| Canada - Prince Edward Island Occupational Exposure Limits                              | Titanium dioxide | Titanium dioxide   | 10 mg/m3 | Not Available | Not Available | TLV® Basis: LRT irr  |
| Canada - British Columbia Occupational Exposure Limits                                  | Titanium dioxide | Titanium dioxide   | 10 mg/m3 | Not Available | Not Available | (N) - the 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m <sup>3</sup> for the respirable fraction.   |
| Canada - Ontario Occupational Exposure Limits   | Titanium dioxide | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction) | 3 mg/m3  | Not Available | Not Available | (R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. |
| Canada - Ontario Occupational Exposure Limits   | Titanium dioxide | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)  | 10 mg/m3 | Not Available | Not Available | (I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.                  |
| Canada - Nova Scotia Occupational Exposure Limits                                       | Titanium dioxide | Titanium dioxide   | 10 mg/m3 | Not Available | Not Available | TLV Basis: lower respiratory tract irritation  |
| Canada - Alberta Occupational Exposure Limits   | Titanium dioxide | Titanium dioxide   | 10 mg/m3 | Not Available | Not Available | 3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.  |
| Canada - Northwest Territories Occupational Exposure Limits                             | Titanium dioxide | Titanium dioxide   | 10 mg/m3 | 20 mg/m3      | Not Available | Not Available  |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants                   | Titanium dioxide | Titanium dioxide - Total dust  | 10 mg/m3 | Not Available | Not Available | Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.  |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants                   | Calcium silicate | Fibres-Natural Mineral Fibres (note 4): Wollastonite - Total dust                            | 10 mg/m3 | Not Available | Not Available | Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%. Note 4: Permissible exposure values in number of respirable fibres per cm <sup>3</sup>   |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants                   | Calcium silicate | Fibres-Natural Mineral Fibres (note 4): Wollastonite - Respirable dust                       | 5 mg/m3  | Not Available | Not Available | Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than  |



## Masters® Pro-Blue® Pipe Thread Sealant

| Source  | Ingredient              | Material name  | TWA           | STEL          | Peak          | Notes  |
|---|-------------------------|--|---------------|---------------|---------------|--|
|   |                         |  |               |               |               | 1%. Note 4: Permissible exposure values in number of respirable fibres per cm3   |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction++        | 10 mg/m3      | 20 mg/m3      | Not Available | Not Available  |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction++       | 3 mg/m3       | 6 mg/m3       | Not Available | Not Available  |
| Canada - Ontario Occupational Exposure Limits   | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)  | 10 mg/m3      | Not Available | Not Available | (I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.                  |
| Canada - Ontario Occupational Exposure Limits   | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction) | 3 mg/m3       | Not Available | Not Available | (R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. |
| Canada - Nova Scotia Occupational Exposure Limits                                       | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) [NOS] Respirable particles                           | 3 mg/m3       | Not Available | Not Available | See Appendix B current TLV/BEI Book  |
| Canada - Nova Scotia Occupational Exposure Limits                                       | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) [NOS] Inhalable particles                            | 10 mg/m3      | Not Available | Not Available | See Appendix B current TLV/BEI Book  |
| Canada - Alberta Occupational Exposure Limits   | polytetrafluoroethylene | Particulate Not Otherwise Regulated: Total   | 10 mg/m3      | Not Available | Not Available | 3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.  |
| Canada - Alberta Occupational Exposure Limits   | polytetrafluoroethylene | Particulate Not Otherwise Regulated: Respirable  | 3 mg/m3       | Not Available | Not Available | 3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.  |
| Canada - Northwest Territories Occupational Exposure Limits                             | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Inhalable fraction          | 10 mg/m3      | 20 mg/m3      | Not Available | Not Available  |
| Canada - Northwest Territories Occupational Exposure Limits                             | polytetrafluoroethylene | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified: Respirable fraction         | 3 mg/m3       | 6 mg/m3       | Not Available | Not Available  |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants                   | polytetrafluoroethylene | Polytetrafluoroethylene decomposition products   | Not Available | Not Available | Not Available | Not Available  |
| Canada - Saskatchewan Occupational Health and Safety Regulations -                      | silica amorphous, fumed | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified:                             | 10 mg/m3      | 20 mg/m3      | Not Available | Not Available  |

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| Source  | Ingredient                  | Material name  | TWA           | STEL          | Peak          | Notes  |
|---|-----------------------------|--|---------------|---------------|---------------|--|
| Contamination Limits  |                             | Inhalable fraction++   |               |               |               |  |
| Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances           | cellulose                   | Cellulose (paper fibre)  | Not Available | Not Available | Not Available | (See Table 11)   |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | cellulose                   | Cellulose (paper fibre)  | 10 mg/m3      | 20 mg/m3      | Not Available | Not Available  |
| Canada - Manitoba Occupational Exposure Limits  | cellulose                   | Not Available  | 10 mg/m3      | Not Available | Not Available | TLV® Basis: URT irr  |
| Canada - Prince Edward Island Occupational Exposure Limits                              | cellulose                   | Cellulose  | 10 mg/m3      | Not Available | Not Available | TLV® Basis: URT irr  |
| Canada - British Columbia Occupational Exposure Limits                                  | cellulose                   | Cellulose  | 10 mg/m3      | Not Available | Not Available | (N) - the 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m <sup>3</sup> for the respirable fraction.   |
| Canada - Ontario Occupational Exposure Limits   | cellulose                   | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Respirable fraction) | 3 mg/m3       | Not Available | Not Available | (R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. |
| Canada - Ontario Occupational Exposure Limits   | cellulose                   | Particles (Insoluble or Poorly Soluble) Not Otherwise Specified (PNOS) (Inhalable fraction)  | 10 mg/m3      | Not Available | Not Available | (I) Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency.                  |
| Canada - Nova Scotia Occupational Exposure Limits                                       | cellulose                   | Cellulose  | 10 mg/m3      | Not Available | Not Available | TLV Basis: upper respiratory tract irritation  |
| Canada - Alberta Occupational Exposure Limits   | cellulose                   | Cellulose  | 10 mg/m3      | Not Available | Not Available | 3 - Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.  |
| Canada - Northwest Territories Occupational Exposure Limits                             | cellulose                   | Cellulose (paper fibre)  | 10 mg/m3      | 20 mg/m3      | Not Available | Not Available  |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants                   | cellulose                   | Cellulose (paper fibres) - Total dust  | 10 mg/m3      | Not Available | Not Available | Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.  |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | silica crystalline - quartz | Silica - Crystalline# : Quartz (respirable fraction++)                                       | 0.05 mg/m3    | Not Available | Not Available | T20  |


## Masters® Pro-Blue® Pipe Thread Sealant

| Source  | Ingredient                  | Material name  | TWA                 | STEL                  | Peak          | Notes  |
|---|-----------------------------|--|---------------------|-----------------------|---------------|--|
| Canada - Manitoba Occupational Exposure Limits  | silica crystalline - quartz | Not Available  | 0.025 mg/m3         | Not Available         | Not Available | TLV® Basis: Pulm fibrosis; lung cancer   |
| Canada - Prince Edward Island Occupational Exposure Limits                              | silica crystalline - quartz | Silica, crystalline - $\alpha$ -quartz and cristobalite    | 0.025 mg/m3         | Not Available         | Not Available | TLV® Basis: Pulm fibrosis; lung cancer   |
| Canada - Ontario Occupational Exposure Limits   | silica crystalline - quartz | Silica, Crystalline - Quartz/Tripoli (Respirable fraction) | 0.10 mg/m3          | Not Available         | Not Available | * Denotes a chemical agent listed in Table 1 of Ontario Regulation 490/09 (Designated Substances) made under the Act. See clause 2 (2) (a) of this Regulation. (R) Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 $\mu$ m at 50 per cent collection efficiency. |
| Canada - Nova Scotia Occupational Exposure Limits                                       | silica crystalline - quartz | Silica, Crystalline - Quartz                               | 0.025 mg/m3         | Not Available         | Not Available | TLV Basis: pulmonary fibrosis; lung cancer   |
| Canada - Alberta Occupational Exposure Limits   | silica crystalline - quartz | Silica-Crystalline, Respirable particulate: Quartz         | 0.025 mg/m3         | Not Available         | Not Available | A2 Suspected Human Carcinogen.   |
| Canada - Alberta Occupational Exposure Limits   | silica crystalline - quartz | Quartz, Respirable particulate                             | 0.025 mg/m3         | Not Available         | Not Available | A2 Suspected Human Carcinogen.   |
| Canada - Northwest Territories Occupational Exposure Limits                             | silica crystalline - quartz | Silica - Crystalline: Quartz (respirable fraction)         | 0.05 mg/m3          | Not Available         | Not Available | Schedule R   |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants                   | silica crystalline - quartz | Silica - Crystalline, Quartz - Respirable dust             | 0.1 mg/m3           | Not Available         | Not Available | C2: carcinogenic effect suspected in humans EM: A substance to which exposure must be reduced to a minimum   |
| Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances           | isopropanol                 | Isopropyl alcohol - Skin                                   | 400 ppm / 980 mg/m3 | 1,225 mg/m3 / 500 ppm | Not Available | Not Available  |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | isopropanol                 | Isopropyl alcohol  | 200 ppm             | 400 ppm               | Not Available | Not Available  |
| Canada - Manitoba Occupational Exposure Limits  | isopropanol                 | Not Available  | 200 ppm             | 400 ppm               | Not Available | TLV® Basis: Eye & URT irr; CNS impair; BEI   |
| Canada - Prince Edward Island Occupational Exposure Limits                              | isopropanol                 | 2-Propanol   | 200 ppm             | 400 ppm               | Not Available | TLV® Basis: Eye & URT irr; CNS impair; BEI   |
| Canada - British Columbia Occupational Exposure Limits                                  | isopropanol                 | Isopropanol (Isopropyl alcohol)                            | 200 ppm             | 400 ppm               | Not Available | Not Available  |
| Canada - Nova Scotia Occupational Exposure Limits                                       | isopropanol                 | 2-Propanol   | 200 ppm             | 400 ppm               | Not Available | TLV Basis: eye & upper respiratory tract irritation; central nervous system impairment   |
| Canada - Alberta Occupational Exposure Limits   | isopropanol                 | Isopropanol (2-Propanol, Isopropyl alcohol)                | 200 ppm / 492 mg/m3 | 984 mg/m3 / 400 ppm   | Not Available | Not Available  |

## Masters® Pro-Blue® Pipe Thread Sealant

| Source  | Ingredient  | Material name                               | TWA                 | STEL                | Peak          | Notes         |
|---|-------------|---|---------------------|---------------------|---------------|---------------|
| Canada - Alberta Occupational Exposure Limits                         | isopropanol | 2-Propanol (Isopropyl alcohol, isopropanol) | 200 ppm / 492 mg/m3 | 984 mg/m3 / 400 ppm | Not Available | Not Available |
| Canada - Alberta Occupational Exposure Limits                         | isopropanol | Isopropyl alcohol (2-Propanol, Isopropanol) | 200 ppm / 492 mg/m3 | 984 mg/m3 / 400 ppm | Not Available | Not Available |
| Canada - Northwest Territories Occupational Exposure Limits           | isopropanol | Isopropyl alcohol                           | 200 ppm             | 400 ppm             | Not Available | Not Available |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants | isopropanol | Isopropyl alcohol                           | 200 ppm             | 400 ppm             | Not Available | Not Available |

## Exposure controls

|   |   |
|---|---|
| <p><b>Appropriate engineering controls</b></p>                                      | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>▶ Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.</li> <li>▶ Work should be undertaken in an isolated system such as a 'glove-box'. Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.</li> <li>▶ Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.</li> <li>▶ Open-vessel systems are prohibited.</li> <li>▶ Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.</li> <li>▶ Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system.</li> <li>▶ For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas).</li> <li>▶ Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.</li> <li>▶ Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.</li> </ul> <p>For large scale or continuous use:</p> <ul style="list-style-type: none"> <li>▶ Spark-free, earthed ventilation system, venting directly to the outside and separate from usual ventilation systems</li> <li>▶ Provide dust collectors with explosion vents</li> </ul> |
| <p><b>Individual protection measures, such as personal protective equipment</b></p> |    |
| <p><b>Eye and face protection</b></p>   | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>   |
| <p><b>Skin protection</b></p>   | <p>See Hand protection below</p>  |

## Masters® Pro-Blue® Pipe Thread Sealant

|                              |  |
|------------------------------|--|
| <b>Hands/feet protection</b> | <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>· frequency and duration of contact,</li> <li>· chemical resistance of glove material,</li> <li>· glove thickness and</li> <li>· dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>· Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>· Contaminated gloves should be replaced.</li> </ul> <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> <li>· Excellent when breakthrough time &gt; 480 min</li> <li>· Good when breakthrough time &gt; 20 min</li> <li>· Fair when breakthrough time &lt; 20 min</li> <li>· Poor when glove material degrades</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <ul style="list-style-type: none"> <li>▶ Wear physical protective gloves, e.g. leather.</li> <li>▶ Wear safety footwear.</li> </ul> |
| <b>Body protection</b>       | See Other protection below   |
| <b>Other protection</b>      | <ul style="list-style-type: none"> <li>▶ Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]</li> <li>▶ Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent]</li> <li>▶ Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.</li> <li>▶ Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.</li> <li>▶ Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</li> <li>▶ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</li> <li>▶ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.</li> </ul>  |

### Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Continued...

## Masters® Pro-Blue® Pipe Thread Sealant

- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

|   |                     |  |                |
|---|---------------------|--|----------------|
| <b>Appearance</b>                                   | Blue paste (solid)  |  |                |
| <b>Physical state</b>                               | Solid               | <b>Relative density (Water = 1)</b>            | 1.14           |
| <b>Odour</b>  | Slight alcohol odor | <b>Partition coefficient n-octanol / water</b> | Not Available  |
| <b>Odour threshold</b>                              | Not Available       | <b>Auto-ignition temperature (°C)</b>          | Not Available  |
| <b>pH (as supplied)</b>                             | Not Available       | <b>Decomposition temperature (°C)</b>          | Not Available  |
| <b>Melting point / freezing point (°C)</b>          | Not Available       | <b>Viscosity (cSt)</b>                         | Not Available  |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available       | <b>Molecular weight (g/mol)</b>                | Not Available  |
| <b>Flash point (°C)</b>                             | 25                  | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available       | <b>Explosive properties</b>                    | Not Available  |
| <b>Flammability</b>                                 | Flammable.          | <b>Oxidising properties</b>                    | Not Available  |
| <b>Upper Explosive Limit (%)</b>                    | Not Available       | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Applicable |
| <b>Lower Explosive Limit (%)</b>                    | Not Available       | <b>Volatile Component (%vol)</b>               | 17.29          |
| <b>Vapour pressure (kPa)</b>                        | Not Available       | <b>Gas group</b>                               | Not Available  |
| <b>Solubility in water</b>                          | Partly miscible     | <b>pH as a solution (1%)</b>                   | Not Available  |
| <b>Vapour density (Air = 1)</b>                     | Not Available       | <b>VOC g/L</b>                                 | 246            |

## SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▸ Unstable in the presence of incompatible materials.</li> <li>▸ Product is considered stable.</li> <li>▸ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

## SECTION 11 Toxicological information

## Masters® Pro-Blue® Pipe Thread Sealant

## Information on toxicological effects

|                     |  |
|---------------------|--|
| <b>Inhaled</b>      | The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.   |
| <b>Ingestion</b>    | Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle weakness and inco-ordination, giddiness, confusion, delirium and coma.<br>The material has <b>NOT</b> been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. |
| <b>Skin Contact</b> | Causes skin irritation.  |
| <b>Eye</b>          | This material can cause eye irritation and damage in some persons.   |
| <b>Chronic</b>      | There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information.<br>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.      |

|   |                 |                   |
|---|-----------------|-------------------|
| <b>Masters® Pro-Blue® Pipe Thread Sealant</b> | <b>TOXICITY</b> | <b>IRRITATION</b> |
|   | Not Available   | Not Available     |

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✓ |
| <b>Skin Irritation/Corrosion</b>         | ✓ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✓ | <b>STOT - Single Exposure</b>   | ✗ |
| <b>Respiratory or Skin sensitisation</b> | ✗ | <b>STOT - Repeated Exposure</b> | ✓ |
| <b>Mutagenicity</b>                      | ✗ | <b>Aspiration Hazard</b>        | ✗ |

## SECTION 12 Ecological information

## Toxicity

|   |                 |                           |                |               |               |
|---|-----------------|---------------------------|----------------|---------------|---------------|
| <b>Masters® Pro-Blue® Pipe Thread Sealant</b> | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b> | <b>Value</b>  | <b>Source</b> |
|   | Not Available   | Not Available             | Not Available  | Not Available | Not Available |

DO NOT discharge into sewer or waterways.

## Persistence and degradability

| <b>Ingredient</b>                               | <b>Persistence: Water/Soil</b> | <b>Persistence: Air</b>  |
|---|--------------------------------|--------------------------|
| Titanium dioxide                                | HIGH                           | HIGH                     |
| polytetrafluoroethylene                         | HIGH                           | HIGH                     |
| cellulose                                       | LOW                            | LOW                      |
| propylene glycol monobutyl ether - alpha isomer | LOW                            | LOW                      |
| isopropanol                                     | LOW (Half-life = 14 days)      | LOW (Half-life = 3 days) |

## Bioaccumulative potential

| <b>Ingredient</b>                               | <b>Bioaccumulation</b> |
|---|------------------------|
| Titanium dioxide                                | LOW (BCF = 10)         |
| polytetrafluoroethylene                         | LOW (LogKOW = 1.2142)  |
| cellulose                                       | LOW (LogKOW = -5.1249) |
| propylene glycol monobutyl ether - alpha isomer | LOW (LogKOW = 0.9842)  |
| isopropanol                                     | LOW (LogKOW = 0.05)    |

## Masters® Pro-Blue® Pipe Thread Sealant

## Mobility in soil

| Ingredient                                      | Mobility           |
|---|--------------------|
| Titanium dioxide                                | LOW (KOC = 23.74)  |
| polytetrafluoroethylene                         | LOW (KOC = 106.8)  |
| cellulose                                       | LOW (KOC = 10)     |
| propylene glycol monobutyl ether - alpha isomer | HIGH (KOC = 1.289) |
| isopropanol                                     | HIGH (KOC = 1.06)  |


## SECTION 13 Disposal considerations

## Waste treatment methods

|                                     |  |
|-------------------------------------|--|
| <b>Product / Packaging disposal</b> | <ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul> |
|-------------------------------------|--|

## SECTION 14 Transport information

## Labels Required

|                         |   |
|-------------------------|---|
| <b>Marine Pollutant</b> |  |
| <b>Marine Pollutant</b> | NO  |

## Land transport (TDG)

|                                     |  |                |
|-------------------------------------|--|----------------|
| <b>UN number or ID number</b>       | 3175   |                |
| <b>UN proper shipping name</b>      | SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. Isopropanol |                |
| <b>Transport hazard class(es)</b>   | Class  | 4.1            |
|                                     | Subsidiary risk  | Not Applicable |
| <b>Packing group</b>                | II   |                |
| <b>Environmental hazard</b>         | Not Applicable   |                |
| <b>Special precautions for user</b> | Special provisions                                     | 16, 56         |
|                                     | Explosive Limit and Limited Quantity Index             | 1 kg           |
|                                     | ERAP Index   | Not Applicable |

## Air transport (ICAO-IATA / DGR)

|                                   |  |                |
|-----------------------------------|--|----------------|
| <b>UN number</b>                  | 3175   |                |
| <b>UN proper shipping name</b>    | Solids containing flammable liquid, n.o.s. * Isopropanol |                |
| <b>Transport hazard class(es)</b> | ICAO/IATA Class  | 4.1            |
|                                   | ICAO / IATA Subrisk                                      | Not Applicable |
|                                   | ERG Code   | 3L             |



## Masters® Pro-Blue® Pipe Thread Sealant

|                                     |   |       |
|-------------------------------------|---|-------|
| <b>Packing group</b>                | II  |       |
| <b>Environmental hazard</b>         | Not Applicable  |       |
| <b>Special precautions for user</b> | Special provisions  | A46   |
|                                     | Cargo Only Packing Instructions                           | 448   |
|                                     | Cargo Only Maximum Qty / Pack                             | 50 kg |
|                                     | Passenger and Cargo Packing Instructions                  | 445   |
|                                     | Passenger and Cargo Maximum Qty / Pack                    | 15 kg |
|                                     | Passenger and Cargo Limited Quantity Packing Instructions | Y441  |
|                                     | Passenger and Cargo Limited Maximum Qty / Pack            | 5 kg  |

## Sea transport (IMDG-Code / GGVSee)

|                                     |  |                |
|-------------------------------------|--|----------------|
| <b>UN number</b>                    | 3175   |                |
| <b>UN proper shipping name</b>      | SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. Isopropanol |                |
| <b>Transport hazard class(es)</b>   | IMDG Class   | 4.1            |
|                                     | IMDG Subrisk   | Not Applicable |
| <b>Packing group</b>                | II   |                |
| <b>Environmental hazard</b>         | Not Applicable   |                |
| <b>Special precautions for user</b> | EMS Number   | F-A, S-I       |
|                                     | Special provisions                                     | 216 274        |
|                                     | Limited Quantities                                     | 1 kg           |

## Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## SECTION 15 Regulatory information

## Safety, health and environmental regulations / legislation specific for the substance or mixture

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

## Talc is found on the following regulatory lists

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

## Kaolin is found on the following regulatory lists

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

Chemical Footprint Project - Chemicals of High Concern List

International WHO List of Proposed Occupational Exposure Limit (OEL)

Values for Manufactured Nanomaterials (MNMS)

## Titanium dioxide is found on the following regulatory lists

Continued...

## Masters® Pro-Blue® Pipe Thread Sealant

## Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

**Calcium silicate is found on the following regulatory lists**

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

**polytetrafluoroethylene is found on the following regulatory lists**

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

**cellulose is found on the following regulatory lists**

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

**silica crystalline - quartz is found on the following regulatory lists**

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

**propylene glycol monobutyl ether - alpha isomer is found on the following regulatory lists**

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

**isopropanol is found on the following regulatory lists**

Canada Categorization decisions for all DSL substances

Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

**National Inventory Status**

| National Inventory | Status   |
|--------------------|--|
| Canada - DSL       | No (Calcium silicate)  |
| Canada - NDSL      | No (Talc; Kaolin; Oxidized Castor Oil; Titanium dioxide; Calcium silicate; polytetrafluoroethylene; silica amorphous, fumed; cellulose; silica crystalline - quartz; propylene glycol monobutyl ether - alpha isomer; isopropanol) |

**SECTION 16 Other information**

|               |            |
|---------------|------------|
| Revision Date | 05/25/2023 |
| Initial Date  | 11/20/2020 |

**SDS Version Summary**

| Version | Date of Update | Sections Updated  |
|---------|----------------|---|
| 0.6     | 05/25/2023     | Exposure control/personal protection, and Regulatory information. |

**Other information**

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Continued...

## Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average PC—  
STEL: Permissible Concentration-Short Term Exposure Limit IARC:  
International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit,  
IDLH: Immediately Dangerous to Life or Health Concentrations  
ES: Exposure Standard  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index  
AII: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances