**SAFETY DATA SHEET**

in accordance with REACH (1907/2006/EC, as amended by 453/2010/EC) and WHMIS 2015

| Revision date: | 26 April 2018 | Initial date of issue: | 11 March 2011 | SDS No. | 1021-8a |

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

1.1. Product identifier

329

1.2. Relevant identified uses of the substance or mixture and uses advised against

A square braided, non-asbestos packing which is coated with a Polytetrafluoroethylene (PTFE) dispersion. For use with stern tubes, rudder posts, Jordans, Claflins, Hydro-finers, shafts, rods and valves against hot or cold water and brine to 135°C (275°F).

1.3. Details of the supplier of the safety data sheet

Company: A.W. CHESTERTON COMPANY
860 Salem Street
Groveland, MA 01834-1507, USA
Tel.: +1 978-469-6446 Fax: +1 978-469-6785
(Mon.-Fri. 8:30 - 5:00 PM EST)
E-mail (SDS questions): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com
SDS requests: www.chesterton.com
Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive,
Unit 105, Burlington, Ontario L7L 4X8 - Tel. 905-335-5055
EU: Chesterton International GmbH, Am Lenzenfleck 23,
D85737 Ismaning, Germany - Tel. +49-89-996-5460

Supplier:

1.4. Emergency telephone number

24 hours per day, 7 days per week
Call Infotrac: 1-800-535-5053
Outside N. America: +1 352-323-3500 (collect)

**SECTION 2: HAZARDS IDENTIFICATION**

2.1. Classification of the substance or mixture


This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.1.2. Classification according to Directive 1999/45/EC

This product does not meet the criteria for classification in any danger category according to Directive 1999/45/EC on classification, packaging and labelling of dangerous preparations.

2.1.3. Classification according to WHMIS 1988

Not controlled

2.1.4. Australian classification

Not classified as hazardous according to criteria of Safe Work Australia.

2.1.5. Additional information


2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / WHMIS 2015 / GHS

| Hazard pictograms: | N/A |
| Signal word: | None |
| Hazard statements: | None |
Precautionary statements: None

Supplemental information: None

2.3. Other hazards

None expected in industrial use. PTFE is nonhazardous at ambient temperatures. At temperatures above 260°C (500°F), toxic decomposition products may be emitted. Due to toxic decomposition, avoid smoking (wash hands to avoid transfer to tobacco products) when handling PTFE products.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>Hazardous Ingredients¹</th>
<th>% Wt.</th>
<th>CAS No./EC No.</th>
<th>REACH Reg. No.</th>
<th>Classification (acc. to 1272/2008/EC)</th>
<th>Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
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</tbody>
</table>

Indications of danger acc. to 67/548/EEC: None

* WHMIS 2015
* Safe Work Australia [NOHSC: 1008 (2004)]

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: If overcome by decomposition fumes, remove to fresh air. If not breathing, administer artificial respiration. Contact physician.

Skin contact: Not applicable

Eye contact: Not applicable

Ingestion: Not applicable

4.2. Most important symptoms and effects, both acute and delayed

PTFE is nontoxic at ambient temperatures. However, small quantities of toxic gases may be produced at temperatures above 260°C (500°F), due to PTFE decomposition. Inhalation of these decomposition products may cause temporary flu-like symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Use extinguisher appropriate to the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Product will burn in an atmosphere of > 95% oxygen, when an ignition source is present.

5.3. Advice for firefighters

Recommend Firefighters wear self-contained breathing apparatus to protect against hazardous decomposition products.

Flammability Classification: –

HAZCHEM Emergency Action Code: 1 Z

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions

No special requirements.

6.3. Methods and material for containment and cleaning up

No special steps required. Nontoxic.
6.4. Reference to other sections
Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Do not smoke when handling PTFE products; wash hands after handling to avoid transfer to tobacco products.

7.2. Conditions for safe storage, including any incompatibilities
Store in a cool, dry area.

7.3. Specific end use(s)
No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>OSHA PEL ppm</th>
<th>mg/m³</th>
<th>ACGIH TLV ppm</th>
<th>mg/m³</th>
<th>UK WEL² ppm</th>
<th>mg/m³</th>
<th>AUSTRALIA ES³ ppm</th>
<th>mg/m³</th>
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<tbody>
<tr>
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</table>

² EH40 Workplace exposure limits, as amended.
³ Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

8.2. Exposure controls

8.2.1. Engineering measures
No special requirements. If using under extreme heat, use local exhaust.

8.2.2. Individual protection measures
Respiratory protection: Not required.
Protective gloves: Not normally needed.
Eye and face protection: Not normally needed.
Other: None

8.2.3. Environmental exposure controls
Refer to sections 6 and 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Odour</th>
<th>Odour threshold</th>
<th>Vapour pressure @ 20°C</th>
<th>% Aromatics by weight</th>
<th>pH</th>
<th>% Volatile (by volume)</th>
<th>Relative density</th>
<th>Weight per volume</th>
<th>Coefficient (water/oil)</th>
<th>Vapour density (air=1)</th>
<th>Rate of evaporation (ether=1)</th>
<th>Solubility in water</th>
<th>Oxidising properties</th>
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<tr>
<td>solid</td>
<td>odorless</td>
<td></td>
<td>not applicable</td>
<td>not applicable</td>
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<td>not applicable</td>
<td>not applicable</td>
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<td>not applicable</td>
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<td>not applicable</td>
<td>Insoluble</td>
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<td>Colour</td>
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<td>% Volatile (by volume)</td>
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<td>Decomposition temperature</td>
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<td>Upper/lower flammability or explosive limits</td>
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<td>Flammability (solid, gas)</td>
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<td>Explosive properties</td>
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</tbody>
</table>

9.2. Other information
None
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Refer to sections 10.3 and 10.5.

10.2. Chemical stability
Stable

10.3. Possibility of hazardous reactions
No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid
Extreme heat above 260°C (500°F).

10.5. Incompatible materials
Oxidizers, Fluorine, Chlorine Trifluoride and related compounds and molten alkali metals.

10.6. Hazardous decomposition products
Carbon Monoxide, Carbon Dioxide, trace amounts of Hydrogen fluoride, Perfluorocarbon olefins, and other toxic fumes may be evolved above 260°C (500°F).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Primary route of exposure under normal use: Inhalation (PTFE decomposition fumes) and skin contact.

Acute effects: PTFE is nontoxic at ambient temperatures. However, small quantities of toxic gases may be produced at temperatures above 260°C (500°F), due to PTFE decomposition. Inhalation of these decomposition products may cause temporary flu-like symptoms.

Chronic effects: None

Carcinogenicity: As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or Regulation (EC) No 1272/2008.

Aspiration hazard: Not applicable

Other information: None

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

12.1. Toxicity
Not expected to be harmful to aquatic organisms.

12.2. Persistence and degradability
PTFE: nonbiodegradable.

12.3. Bioaccumulative potential
Not determined

12.4. Mobility in soil
Solid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).

12.5. Results of PBT and vPvB assessment
Not available

12.6. Other adverse effects
None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Unused product is not a regulated waste (not classified as hazardous according to 2008/98/EC). Check local, state and national/federal regulations and comply with the most stringent requirement.

European List of Wastes code: Not determined
SECTION 14: TRANSPORT INFORMATION

14.1. UN number
ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.2. UN proper shipping name
ADR/RID/ADN/IMDG/ICAO: NON-HAZARDOUS, NON REGULATED
TDG: NON-HAZARDOUS, NON REGULATED
US DOT: NON-HAZARDOUS, NON REGULATED

14.3. Transport hazard class(es)
ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.4. Packing group
ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE
TDG: NOT APPLICABLE
US DOT: NOT APPLICABLE

14.5. Environmental hazards
NOT APPLICABLE

14.6. Special precautions for user
NOT APPLICABLE

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
NOT APPLICABLE

14.8. Other information
NOT APPLICABLE

SECTION 15: REGULATORY INFORMATION

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

15.1.1. EU regulations
Authorisations under Title VII: Not applicable
Restrictions under Title VIII: None
Other EU regulations: None

15.1.2. National regulations

US EPA SARA TITLE III
312 Hazards: None
313 Chemicals: None

Hazardous Materials Identification System (HMIS)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
<td>*</td>
</tr>
</tbody>
</table>

HEALTH 0
FLAMMABILITY 0
REACTIVITY 1
Personal Protection *

Other national regulations: None

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.
SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:
- ACGIH: American Conference of Governmental Industrial Hygienists
- ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE: Acute Toxicity Estimate
- BCF: Bioconcentration Factor
- CLP: Classification Labelling Packaging Regulation (1272/2008/EC)
- ES: Exposure Standard
- GHS: Globally Harmonized System
- ICAO: International Civil Aviation Organization
- IMDG: International Maritime Dangerous Goods
- LC50: Lethal Concentration to 50% of a test population
- LD50: Lethal Dose to 50% of a test population
- LOEL: Lowest Observed Effect Level
- N/A: Not Applicable
- NA: Not Available
- NOAEL: No Observed Adverse Effect Level
- NOEL: No Observed Effect Level
- OSHA: Occupational Health & Safety Administration
- PBT: Persistent, Bioaccumulative and Toxic substance
- PEL: Permissible Exposure Limit
- (Q)SAR: Quantitative Structure-Activity Relationship
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)
- RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
- SDS: Safety Data Sheet
- STEL: Short Term Exposure Limit
- STOT: Specific Target Organ Toxicity
- TDG: Transportation of Dangerous Goods (Canada)
- TLV: Threshold Limit Value
- US DOT: United States Department of Transportation
- vPvB: very Persistent and very Bioaccumulative substance
- WEL: Workplace Exposure Limit
- WHMIS: Workplace Hazardous Materials Information System

Other abbreviations and acronyms can be looked up at www.wikipedia.org.

Key literature references and sources for data:
- Commission de la santé et de la sécurité du travail (CSST)
- European chemical Substances Information System (ESIS)
- European Chemicals Agency (ECHA) - Information on Chemicals
- Hazardous Substances Data Bank (HSDB)
- Hazardous Substances Information System (HSIS)
- Swedish Chemicals Agency (KEMI)

Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Relevant H-statements: None

Relevant R-phrases: None

Hazard pictogram names: Not applicable

Changes to the SDS in this revision: Sections 1.3, 2.1, 2.2, 3, 16.

Date of last revision: 26 April 2018

Further information: None

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.