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: 22 July 2003
SDS No. 1122-1a

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

1.1. Product identifier
5505H

1.2. Relevant identified uses of the substance or mixture and uses advised against
Disc springs made from #13 chromium steel with an oxide coating for bolted heat exchanges and pipe flanges. Multiple industrial uses: waste water, chemical, refining, pulp and paper etc.

1.3. Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company:</th>
<th>Supplier:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.W. CHESTERTON COMPANY</td>
<td></td>
</tr>
<tr>
<td>860 Salem Street</td>
<td></td>
</tr>
<tr>
<td>Groveland, MA 01834-1507, USA</td>
<td></td>
</tr>
<tr>
<td>Tel.: +1 978-469-6446 Fax: +1 978-469-6785</td>
<td></td>
</tr>
<tr>
<td>(Mon. - Fri. 8:30 - 5:00 PM EST)</td>
<td></td>
</tr>
<tr>
<td>E-mail (SDS questions): <a href="mailto:ProductMSDSs@chesterton.com">ProductMSDSs@chesterton.com</a></td>
<td></td>
</tr>
<tr>
<td>E-mail: <a href="mailto:customer.service@chesterton.com">customer.service@chesterton.com</a></td>
<td></td>
</tr>
<tr>
<td>SDS requests: <a href="http://www.chesterton.com">www.chesterton.com</a></td>
<td></td>
</tr>
</tbody>
</table>

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, D-85737 Ismaning, Germany - Tel. +49-89-996-5460

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

<table>
<thead>
<tr>
<th>Hazard pictograms:</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word:</td>
<td>None</td>
</tr>
</tbody>
</table>
Hazard statements: None
Precautionary statements: None
Supplemental information: None

2.3. Other hazards
None expected in industrial use.

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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<td></td>
</tr>
</tbody>
</table>

Indications of danger acc. to 67/548/EEC: Not applicable

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

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
Inhalation: not applicable
Skin contact: not applicable
Eye contact: not applicable
Ingestion: not applicable

4.2. Most important symptoms and effects, both acute and delayed
None

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

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media
Carbon Dioxide, dry chemical or water spray

5.2. Special hazards arising from the substance or mixture
None

5.3. Advice for firefighters
Recommend Firefighters wear self-contained breathing apparatus.

Flammability Classification: not determined
HAZCHEM Emergency Action Code: 2

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
No special precautions.

6.2. Environmental Precautions
No special precautions.

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
No special precautions.

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>Hazardous Ingredients</th>
<th>OSHA PEL ppm</th>
<th>OSHA PEL mg/m³</th>
<th>ACGIH TLV ppm</th>
<th>ACGIH TLV mg/m³</th>
<th>UK WEL ppm</th>
<th>UK WEL mg/m³</th>
<th>AUSTRALIA ES ppm</th>
<th>AUSTRALIA ES mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

8.2.1. Engineering measures
No special requirements. Local exhaust is needed during dust producing operations.

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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
</tr>
<tr>
<td>Colour</td>
<td>black</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
</tr>
<tr>
<td>% Volatile (by volume)</td>
<td>0</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Method</td>
<td>not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>not applicable</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not determined</td>
</tr>
<tr>
<td>Odour</td>
<td>not applicable</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure @ 20°C</td>
<td>not applicable</td>
</tr>
<tr>
<td>% Aromatics by weight</td>
<td>0</td>
</tr>
<tr>
<td>pH</td>
<td>not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>not determined</td>
</tr>
<tr>
<td>Weight per volume</td>
<td>not applicable</td>
</tr>
<tr>
<td>Coefficient (water/oil)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Rate of evaporation (ether=1)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>not determined</td>
</tr>
</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
None

10.5. Incompatible materials
Reacts with strong acids to generate Hydrogen gas.

10.6. Hazardous decomposition products
Carbon Monoxide, Carbon Dioxide and other toxic fumes.

### SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Primary route of exposure under normal use: skin contact

- **Acute effects:** None
- **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.

- **Other information:** None known

### 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 determined

12.2. Persistence and degradability
not determined

12.3. Bioaccumulative potential
not determined

12.4. Mobility in soil
Solid. Insoluble in water.

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 per EPA Toxic Characteristic Leaching Procedure (TCLP). Check local, state and national/federal regulations and comply with the most stringent requirement. This product is not classified as a hazardous waste according to 91/689/EEC.

**European List of Wastes code:** 20 01 40

### SECTION 14: TRANSPORT INFORMATION

14.1. UN number

<table>
<thead>
<tr>
<th>ADR/RID/ADN/IMDG/ICAO:</th>
<th>NOT APPLICABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG:</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>US DOT:</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>
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)
HEALTH 0
FLAMMABILITY 0
REACTIVITY 1
Personal Protection *

JAPAN PRTR
Class I Chemicals: None
Class II Chemicals: None

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

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

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)

### Relevant H-statements:
- None

### Relevant R-phrases:
- None

### 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.