

## SAFETY DATA SHEET

in accordance with 2020/878/EU (REACH, Annex II) 29 CFR 1910.1200, WHMIS 2022 and Safe Work Australia

**Revision:** 14 February 2025

**Date of previous issue:** 10 April 2018

**SDS No.** 1091-11

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

#### 1.1. Product identifier

1600, 1600SP

**Unique Formula Identifier (UFI):** Not required

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

**Relevant identified uses:** A general service emissions and steam service packing for use in all control and block valve services to 650°C (1200°F) and 8400 psi (580 Bar).

**Uses advised against:** No information available

**Reason why uses advised against:** Not applicable

#### 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  
(Mon. - Fri. 8:30 - 5:00 PM EST)  
SDS requests: [www.chesterton.com](http://www.chesterton.com)  
E-mail (SDS questions): [ProductSDSs@chesterton.com](mailto:ProductSDSs@chesterton.com)  
E-mail: [customer.service@chesterton.com](mailto:customer.service@chesterton.com)

##### Supplier:

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

#### 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)  
NSW Poisons Information Centre (Australia): 13 11 26

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### 2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

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, 29 CFR 1910.1200, WHMIS 2022 and GHS.

##### 2.1.2. Additional information

None

#### 2.2. Label elements

**Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS**

**Hazard pictograms:** None

**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**

Hazardous Ingredients <sup>1</sup>	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification	SCL, M-factor, ATE
Graphite	70-80	7782-42-5 231-955-3	NA	Not classified	ATE (oral): > 2,000 mg/kg ATE (inhalation, dust): > 2 mg/l
Silica (Quartz)	< 0.4	14808-60-7 238-878-4	NA	Not classified	NA

For full text of H-statements: see SECTION 16.

<sup>1</sup> Classified according to:

- 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F)
- 1272/2008/EC, GHS, REACH
- WHMIS 2022
- Safe Work Australia

**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:** Wash skin with soap and water. Contact physician if irritation persists.

**Eye contact:** Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.

**Ingestion:** Not applicable

**Protection of first-aiders:** No special precautions.

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

Graphite dust may cause mechanical irritation to the skin, eyes and nasal passages.

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

Treat symptoms.

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media**

**Suitable extinguishing media:** Carbon dioxide, dry chemical, foam or water spray

**Unsuitable extinguishing media:** None known

**5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products:** Toxic fumes may be emitted at temperatures above 260°C (500°F). See section 10.6 for additional information.

**Other hazards:** None

**5.3. Advice for firefighters**

Recommend Firefighters wear self-contained breathing apparatus.

**Australian HAZCHEM Emergency Action Code:** 2 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**

Accumulations of graphite may cause shorting of electrical circuits. Do not smoke when handling PTFE products; wash hands after handling to avoid transfer to tobacco products. Avoid creating and breathing dust during removal, drilling, grinding, sawing or sanding.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in cool, dry area. Exposure to heat, humidity, ozone or light may shorten its unlimited shelf life.

**7.3. Specific end use(s)**

No special precautions.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Occupational exposure limit values**

Ingredients	OSHA PEL <sup>1</sup>		ACGIH TLV <sup>2</sup>		UK WEL <sup>3</sup>		AUSTRALIA ES <sup>4</sup>	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Graphite	15 mppcf	(resp.)	(resp.)	2	(resp.) (total)	4 10	(resp.)	3
Silica (Quartz)	(resp.) (total)	0.05 30/(%SiO <sub>2</sub> +2)	(resp.)	0.025	(resp.)	0.1	(resp.)	0.05

<sup>1</sup> United States Occupational Health & Safety Administration permissible exposure limits

<sup>2</sup> American Conference of Governmental Industrial Hygienists threshold limit values

<sup>3</sup> EH40 Workplace exposure limits, Health & Safety Executive

<sup>4</sup> Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Derived No Effect Level (DNEL) according to Regulation (EC) No 1907/2006:****Workers**

Not available

**Predicted No Effect Concentration (PNEC) according to Regulation (EC) No 1907/2006:**

Not available

**8.2. Exposure controls****8.2.1. Engineering measures**

If using under extreme heat, use local exhaust.

**8.2.2. Individual protection measures**

**Respiratory protection:** Not normally needed. If exposure limits are exceeded, use an approved dust respirator (e.g., EN filter type P2).

**Protective gloves:** Not normally needed.

**Eye and face protection:** Recommend safety glasses.

**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**

<b>Physical state</b>	solid	<b>pH</b>	not applicable
<b>Colour</b>	gray	<b>Kinematic viscosity</b>	not applicable
<b>Odour</b>	odorless	<b>Solubility in water</b>	insoluble
<b>Odour threshold</b>	not determined	<b>Partition coefficient n-octanol/water (log value)</b>	not applicable
<b>Boiling point or range</b>	not applicable	<b>Vapour pressure @ 20°C</b>	not applicable
<b>Melting point/freezing point</b>	1371°C (2550°F)	<b>Density and/or relative density</b>	not determined
<b>% Volatile (by volume)</b>	not applicable	<b>Weight per volume</b>	not applicable
<b>Flammability</b>	not applicable	<b>Vapour density (air=1)</b>	not applicable
<b>Lower/upper flammability or explosion limits</b>	not applicable	<b>Rate of evaporation (ether=1)</b>	not applicable
<b>Flash point</b>	not applicable	<b>% Aromatics by weight</b>	not applicable
<b>Method</b>	not applicable	<b>Particle characteristics</b>	no data available
<b>Autoignition temperature</b>	not determined	<b>Explosive properties</b>	not applicable
<b>Decomposition temperature</b>	not determined	<b>Oxidising properties</b>	not applicable

**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**

Fluorine, Chlorine Trifluoride and related compounds and molten alkali metals.

**10.6. Hazardous decomposition products**

Carbon Monoxide, Carbon Dioxide, trace amounts of Hydrogen Fluoride, Carbonyl Fluoride, Perfluorocarbon olefins and other toxic fumes may be evolved above 260°C (500°F).

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 / GHS**

**Primary route of exposure under normal use:** Inhalation, skin and eye contact. Personnel with pre-existing chronic respiratory impairments are generally aggravated by exposure.

**Acute toxicity -****Oral:**

Substance	Test	Result
Graphite	LD50, rat	> 2000 mg/kg

**Dermal:**

Based on available data on components, the classification criteria are not met.

**Inhalation:**

Graphite dust may cause mechanical irritation of the nasal passages.

Substance	Test	Result
Graphite	LC50, rat, 4 hours	> 2 mg/l (dust)

**Skin corrosion/irritation:**

Based on available data on components, the classification criteria are not met. Graphite dust may cause mechanical irritation to the skin.

Substance	Test	Result
Graphite	Skin irritation, rabbit	Not irritating

**Serious eye damage/irritation:**

Graphite dust may cause mechanical irritation to the eyes.

Substance	Test	Result
Graphite	Eye irritation, rabbit	Not irritating

**Respiratory or skin sensitisation:**

Substance	Test	Result
Graphite	Skin sensitization, mouse	Not sensitizing

**Germ cell mutagenicity:**

Graphite: based on available data, the classification criteria are not met.

**Carcinogenicity:**

The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have classified inhaled silica as a human carcinogen.

**Reproductive toxicity:**

Graphite: based on available data, the classification criteria are not met.

**STOT – single exposure:**

Not expected to cause toxicity. Graphite: based on available data, the classification criteria are not met.

**STOT – repeated exposure:**

Repeated inhalation of respirable free silica may cause scarring of the lungs with cough and shortness of breath. Silicosis, a delayed lung injury that is a disabling, progressive and sometimes fatal pulmonary fibrosis, may result. Graphite: based on available data, the classification criteria are not met.

**Aspiration hazard:**

Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**

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**

This product is expected to exhibit low toxicity to aquatic and soil organisms. Graphite: 96 h LC50 (fish) &gt; 100 mg/l.

**12.2. Persistence and degradability**

Graphite, Silica: inorganic substances, exist in nature. PTFE: material is chemically unreactive and nonbiodegradable.

**12.3. Bioaccumulative potential**

Graphite: bioconcentration in aquatic organisms is not expected to be significant.

**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. Endocrine disrupting properties**

None known

**12.7. Other adverse effects**

None known

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

Unused product is not a regulated waste. 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 2008/98/EC.

**SECTION 14: TRANSPORT INFORMATION****14.1. UN number or ID number**

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE

TDG: NOT APPLICABLE

US DOT: NOT APPLICABLE

**14.2. UN proper shipping name**

ADG/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)**

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE

TDG: NOT APPLICABLE

US DOT: NOT APPLICABLE

**14.4. Packing group**

ADG/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. Maritime transport in bulk according to IMO instruments**

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

**Chemicals subject to reporting requirements of Section 313 of EPCRA and of 40 CFR 372:**

None

All components are listed or exempted.

**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:** ADG: Australian Dangerous Goods Code  
 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  
 cATpE: Converted Acute Toxicity point Estimate  
 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  
 NOEC: No Observed Effect Concentration  
 NOEL: No Observed Effect Level  
 OECD: Organization for Economic Co-operation and Development  
 PBT: Persistent, Bioaccumulative and Toxic substance  
 (Q)SAR: Quantitative Structure-Activity Relationship  
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)  
 REL: Recommended Exposure Limit  
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail  
 SCL: Specific Concentration Limit  
 SDS: Safety Data Sheet  
 STEL: Short Term Exposure Limit  
 STOT RE: Specific Target Organ Toxicity, Repeated Exposure  
 STOT SE: Specific Target Organ Toxicity, Single Exposure  
 TDG: Transportation of Dangerous Goods (Canada)  
 TWA: Time Weighted Average  
 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](http://www.wikipedia.org).

**Key literature references and sources for data:** Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST)  
 Chemical Classification and Information Database (CCID)  
 European Chemicals Agency (ECHA) - Information on Chemicals  
 Hazardous Chemical Information System (HCIS)  
 National Institute of Technology and Evaluation (NITE)  
 Swedish Chemicals Agency (KEMI)  
 U.S. National Library of Medicine Toxicology Data Network (TOXNET)

**Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 [CLP] / GHS:**

Classification	Classification procedure
Not applicable	Not applicable

**Relevant H-statements:** None

**Hazard pictogram names:** Not applicable

**Further information:** None

**Date of last revision:** 14 February 2025

**Changes to the SDS in this revision:** Sections 1.1, 1.2, 1.3, 2.1, 3, 4.2, 8.1, 9.1, 12.6, 15.1, 16.

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.