

SAFETY DATA SHEET

in accordance with 2015/830/EU (REACH, Annex II) 29 CFR 1910.1200, WHMIS 2015 and Safe Work Australia

Revision date: 14 October 2020

Initial date of issue: 12 July 2007

SDS No. 283B-13

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

1.1. Product identifier

787 Sliding Paste (Bulk)

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

High viscosity, solid lubricating paste for high temperature and extreme pressure use. Do not use on oxygen systems.

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)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductSDSs@chesterton.com
E-mail: 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 2015 / Safe Work Australia / GHS

Serious eye damage, Category 1, H318
Skin irritation, Category 2, H315

2.1.2. Australian statement of hazardous nature

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

2.1.3. Additional information

For full text of H-statements: see SECTIONS 2.2 and 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / Safe Work Australia / GHS

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H318 Causes serious eye damage.
H315 Causes skin irritation.

Precautionary statements:	P264	Wash skin thoroughly after handling.
	P280	Wear protective gloves and eye/face protection.
	P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310	Immediately call a POISON CENTER or doctor.
	P332/313	If skin irritation occurs: Get medical advice/attention.
	P362/364	Take off contaminated clothing and wash it before reuse.

Supplemental information: None

2.3. Other hazards

None expected in industrial use. The Graphite, Talc and Molybdenum Disulfide listed do not separate from the mixture or become airborne, therefore do not present a hazard in normal use.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification
Boric acid	3 - < 5.5	10043-35-3 233-139-2	NA	Repr. 1B, H360FD (≥ 5.5 %)
Polyoxyethylene oleyl ether phosphate	1 - 4.9	39464-69-2 Polymer	NA	Eye Dam. 1, H318 Skin Irrit. 2, H315
Methanol	0.1 - 0.5	67-56-1 200-659-6	NA	Flam. Liq. 2, H225 Acute Tox. 3, H331, H311, H301 STOT SE 1, H370

Other ingredients:

Graphite	20 - 30	7782-42-5 231-955-3	01-211948 6977-12	Not classified*
Talc	10 - 15	14807-96-6 238-877-9	NA	Not classified*
Molybdenum disulfide	1 - 5	1317-33-5 215-263-9	NA	Not classified*

*Substance with a workplace exposure limit.

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

¹ 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 2015
• Safe Work Australia

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation: 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: Do not induce vomiting. Contact physician immediately.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. Avoid contact with the product while providing aid to the victim. See section 8.2.2 for recommendations on personal protective equipment.

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

Direct contact can cause severe eye irritation, possibly burns and skin irritation. High vapor concentrations may irritate eyes, respiratory tract and possibly cause dizziness and nausea.

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, water fog

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products may include: carbon dioxide, carbon monoxide, sulfur oxides (SO₂) oxides of phosphorus, Molybdenum trioxide.

5.3. Advice for firefighters

Cool exposed containers with water. 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**

Evacuate area. Provide adequate ventilation. 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

Contain spill to a small area. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal. Use caution - floor may be slippery where spill has occurred.

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. Wash before eating, drinking or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry area.

7.3. Specific end use(s)

High viscosity, solid lubricating paste for high temperature and extreme pressure use. Refer to the product instructions and product data sheet for more detailed application information.

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

Ingredients	OSHA PEL ¹		ACGIH TLV ²		UK WEL ³		AUSTRALIA ES ⁴	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Boric acid	(resp.)	10	(inhal.)	2	N/A	N/A	N/A	N/A
		3	(inhal.)	STEL: 6				
Polyoxyethylene oleyl ether phosphate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methanol	200	260	(skin)	262	200	266	200	262
			STEL:	328	STEL:	STEL:	(skin)	328
			250		250	333	STEL:	250
Graphite	(total)	15	(resp.)	2	(inhal.)	10	(resp.)	3
	(resp.)	5			(resp.)	4		
Talc	N/A	20 mppcf	(resp.)	2	(resp.)	1	N/A	2.5
Molybdenum disulfide	N/A	15	(inhal.)	10	N/A	10	N/A	10
			(resp.)	3		STEL:		
						20		

¹ United States Occupational Health & Safety Administration permissible exposure limits

² American Conference of Governmental Industrial Hygienists threshold limit values

³ EH40 Workplace exposure limits, Health & Safety Executive

⁴ Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants

Biological limit values

Methanol:

Control parameter	Biological specimen	Sampling Time	Limit value	Source	Notes
Methanol	Urine	End of shift	15 mg/l	ACGIH	Background, Nonspecific

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

Workers

Substance	Route of exposure	Potential health effects	DNEL
Boric acid	Inhalation	Chronic effects, systemic	8.28 mg/m ³
	Dermal	Chronic effects, systemic	392.0 mg/kg/day
	Inhalation / Dermal	Acute effects, local; Acute effects, systemic; Chronic effects, local	No hazard identified
Methanol	Inhalation	Acute effects, local	260 mg/m ³
		Acute effects, systemic	260 mg/m ³
		Chronic effects, local	260 mg/m ³
	Dermal	Chronic effects, systemic	260 mg/m ³
		Acute effects, local	*
		Acute effects, systemic	40 mg/kg/day
		Chronic effects, local	*
	Chronic effects, systemic	40 mg/kg/day	

*Hazard identified but no DNEL available

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

Substance	Environmental protection target	PNEC
Boric acid	Fresh water / Marine water	2.02 mg/l
	Water, intermittent release	13.7 mg/l
	Air	No exposure expected
	Freshwater sediments / Marine sediments	No exposure expected
Methanol	Microorganisms in sewage treatment	10 mg/l
	Soil (agricultural)	5.4 mg/kg
	Fresh water	154 mg/l
	Freshwater sediments	570.4 mg/l
	Marine water	15.4 mg/l
	Microorganisms in sewage treatment	100 mg/l
	Soil (agricultural)	23.5 mg/kg

8.2. Exposure controls

8.2.1. Engineering measures

No special requirements. If exposure limits are exceeded, provide adequate ventilation.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. If exposure limits are exceeded, use approved organic vapor respirator (e.g., EN filter type A-P2).

Protective gloves: Chemical resistant gloves (e.g., natural rubber, neoprene or PVC)

Eye and face protection: Safety goggles.

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**

Physical state	paste	Odour	mild odor
Colour	dark gray	Odour threshold	not determined
Initial boiling point	not determined	Vapour pressure @ 20°C	not determined
Melting point	not applicable	% Aromatics by weight	< 1%
% Volatile (by volume)	< 2%	pH	not applicable
Flash point	127°C (260°F)	Relative density	1.3 kg/l
Method	PM Closed Cup	Weight per volume	10.8 lbs/gal.
Viscosity	148K cps @ 25°C	Coefficient (water/oil)	< 1
Autoignition temperature	> 200°C (> 392°F)	Vapour density (air=1)	> 1
Decomposition temperature	not determined	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	not determined	Solubility in water	insoluble
Flammability (solid, gas)	not applicable	Oxidising properties	not determined
Explosive properties	not determined		

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

Temperatures above 200°C (392°F).

10.5. Incompatible materials

Strong oxidizers like liquid Chlorine and concentrated Oxygen, Hydrogen Peroxide, Potassium Nitrate.

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:** Inhalation, skin and eye contact.**Acute toxicity -****Oral:** ATE-mix, oral: 30,303 mg/kg

Substance	Test	Result
Graphite	LD50, rat	> 2,000 mg/kg
Boric acid	LD50, rat	3,450 mg/kg
Polyoxyethylene oleyl ether phosphate	LD50, rat	42,300 mg/kg
Molybdenum disulfide	LD50, rat	> 5,000 mg/kg
Methanol	LD50, rat	5,628 mg/kg
Methanol	Human lethal dose	143 mg/kg

Dermal: ATE-mix, dermal: 90,909 mg/kg

Substance	Test	Result
Boric acid	LD50, rabbit	> 2,000 mg/kg
Molybdenum disulfide	LD50, rat	> 16,000 mg/kg
Methanol	LD50, rabbit	17,100 mg/kg

Inhalation: High vapor concentrations may irritate eyes, respiratory tract and possibly cause dizziness and nausea. ATE-mix, inhalable: 909.1 mg/l

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

Skin corrosion/irritation: Direct skin contact can cause irritation.

Substance	Test	Result
Graphite	Skin irritation, rabbit	Not irritating
Boric acid	Skin irritation, rabbit	Slightly irritating
Polyoxyethylene oleyl ether phosphate	Skin irritation, rabbit	Irritating
Molybdenum disulfide	Skin irritation, rabbit	Not irritating
Methanol	Skin irritation, rabbit	Not irritating

Serious eye damage/irritation: Direct contact can cause severe eye irritation, possibly burns.

Substance	Test	Result
Graphite	Eye irritation, rabbit	Not irritating
Boric acid	Eye irritation, rabbit	Not irritating
Polyoxyethylene oleyl ether phosphate	Eye irritation, rabbit	Severe irritation
Methanol	Eye irritation, rabbit	Not irritating

Respiratory or skin sensitisation:

Substance	Test	Result
Graphite	Skin sensitization, (OECD 429) mouse	Not sensitizing
Boric acid	Skin sensitization, (OECD 406) guinea pig	Not sensitizing
Molybdenum disulfide	Skin sensitization, (OECD 406)	Not sensitizing
Methanol	Skin sensitization, guinea pig	Not sensitizing

Germ cell mutagenicity: Graphite, Boric acid, Molybdenum disulfide, Methanol: based on available data, the classification criteria are not met. Talc, Ames test: negative.

Carcinogenicity: 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 the European Chemicals Agency (ECHA).

Reproductive toxicity: Graphite: based on available data, the classification criteria are not met. Boric Acid is embryotoxic and/or fetotoxic in animals. Methanol: data lacking.

STOT – single exposure: No data available

STOT – repeated exposure: Prolonged, excessive inhalation of Graphite dust has caused emphysema and pneumoconiosis. Repeated or prolonged inhalation of Talc dust may cause chronic cough, shortness of breath, scarring of the lungs (pulmonary fibrosis) and mild symptomatic pneumoconiosis. The Graphite and Talc listed do not separate from the mixture or become airborne, therefore do not present a hazard in normal use. Graphite, Methanol: based on available data, the classification criteria are not met.

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

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

This product is expected to exhibit low toxicity to aquatic and soil organisms. Graphite: 96 h LC50 (fish) > 100 mg/l. Talc: 24 h LC50 (fish) > 100 g/l.

12.2. Persistence and degradability

Graphite, Boric acid, Talc, Molybdenum disulfide: inorganic substances. Methanol: readily biodegradable.

12.3. Bioaccumulative potential

Boric acid: not expected to bioaccumulate (log Kow <1). Graphite, Molybdenum disulfide, Methanol: not expected to bioaccumulate.

12.4. Mobility in soil

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**

Incinerate absorbed material with a properly licensed facility. Check local, state and national/federal regulations and comply with the most stringent requirement. Not classified as hazardous according to 2008/98/EC.

SECTION 14: TRANSPORT INFORMATION**14.1. UN 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. 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: Substances of very high concern (SVHC) per Regulation (EC) No 1907/2006 (REACH) Art. 57: Boric acid

15.1.2. National regulations**US EPA SARA TITLE III****312 Hazards:**

Serious eye damage
 Skin irritation

313 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

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
 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.

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
Eye Dam. 1, H318	Calculation method
Skin Irrit. 2, H315	Calculation method

Relevant H-statements: H225: Highly flammable liquid and vapour.
 H301: Toxic if swallowed.
 H311: Toxic in contact with skin.
 H315: Causes skin irritation.
 H318: Causes serious eye damage.
 H331: Toxic if inhaled.
 H360FD: May damage fertility. May damage the unborn child.
 H370: Causes damage to organs.

Hazard pictogram names: Corrosion

Further information: None

Date of last revision: 14 October 2020

Changes to the SDS in this revision: Sections 1.3, 2.1, 2.2, 3, 4.1, 5.2, 5.3, 8.1, 10.5, 11, 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.