

SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 453/2010/EC) and 29 CFR 1910.1200

Revision date: 29 May 2015 **Initial date of issue:** 3 July 2007 **SDS No.** 291-15

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

1.1. Product identifier

218 HDP

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

A high-alkaline, low-foaming cleaner.

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): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com

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

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

Skin Corr. 1B, H314

2.1.2. Classification according to Directives 1999/45/EC and 1975/324/EEC

C; Corrosive; R34

2.1.3. Classification according to 29 CFR 1910.1200 / WHMIS 2015

Skin Corr. 1B, H314
Repr. 2, H361d

2.1.4. Classification according to WHMIS 1988

E: Corrosive materials

2.1.5. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

2.1.6. Additional information

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

2.2. Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H314

Causes severe skin burns and eye damage.

Precautionary statements: P260 Do not breathe mist/spray.
 P280 Wear protective gloves/clothing and eye/face protection.
 P301/330/331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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/physician.

Supplemental information: None

2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015

Hazard pictograms:



Signal word: Danger

Hazard statements: H314 Causes severe skin burns and eye damage.
 H361D Suspected of damaging the unborn child.

Precautionary statements: P201 Obtain special instructions before use.
 P260 Do not breathe mist/spray.
 P280 Wear protective gloves/clothing and eye/face protection.
 P301/330/331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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/physician.

Supplemental information: None

2.3. Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	Classification (CLP/GHS)	Classification (67/548/EEC)
Potassium hydroxide	1-4.9	1310-58-3 215-181-3	NA	Acute Tox. 4, H302 Skin Corr. 1A, H314	C; R35 Xn; R22
Boric Acid, Monoethanolamine Salt	1-3	26038-87-9 247-421-8	NA	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	Xn; R22 Xi; R36/38
Boric acid, Monoisopropanolamine Salt	1-3	26038-90-4 247-422-3	NA	Acute Tox. 4, H302	Xn; R22
Sodium carbonate	1-2	497-19-8 207-838-8	NA	Eye Irrit. 2, H319	Xi; R36
2-(2-Methoxyethoxy)ethanol	0.1-1	111-77-3 203-906-6	NA	Repr. 2, H361d	Repr. Cat. 3; R63

Indications of danger acc. to 67/548/EEC: C: Corrosive; Xn: Harmful; Xi: Irritant

¹ Classified according to: * 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L.O. 111F), California Proposition 65
 * 1272/2008/EC, 67/548/EEC, 99/45/EC, REACH
 * WHMIS 2015
 * Safe Work Australia [NOHSC: 1008 (2004)]

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:** Flood area with water while removing contaminated clothing. Wash clothing before reuse. Wash skin with soap and water. Contact physician.
- Eye contact:** Flush eyes for at least 30 minutes with large amounts of water. Contact physician.
- Ingestion:** Do not induce vomiting. If conscious, drink large quantities of water. Contact physician immediately.

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

Direct contact causes eye, skin and mucous membrane burns.

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

Treat symptoms.

SECTION 5: FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Carbon Dioxide, dry chemical, foam or water fog.

Unsuitable extinguishing media: No information available

5.2. Special hazards arising from the substance or mixture

None

5.3. Advice for firefighters

Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.

Flammability Classification: –

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

Contain spill to a small area. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in a suitable container for disposal.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Utilize exposure controls and personal protection as specified in Section 8. Alkaline materials sometimes exhibit delayed effects. Wash immediately after any contact. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Keep container closed when not in use. 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****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
Potassium hydroxide	–	–	–	(Ceiling) 2	–	2 (STEL)	–	(Peak) 2
Boric Acid, Monoethanolamine Salt	–	–	–	–	–	–	–	–
Boric acid, Monoisopropanolamine Salt	–	–	–	–	–	–	–	–
Sodium carbonate	–	–	–	–	–	–	–	–
2-(2-Methoxyethoxy)ethanol	–	–	–	–	10	50.1 (skin)	–	–

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 Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

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

Use only in well-ventilated areas. If exposure limits are exceeded, supplement with local mechanical exhaust. Provide readily accessible eye wash stations and safety showers.

8.2.2. Individual protection measures

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

Protective gloves: Waterproof gloves (e.g., rubber, nitrile, latex)

Eye and face protection: Safety goggles.

Other: Rubber apron, rubber boots and other impervious clothing as necessary to prevent skin contact.

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	liquid	Odour	mild detergent odor
Colour	colorless	Odour threshold	not determined
Initial boiling point	100°C (212°F)	Vapour pressure @ 20°C	not determined
Melting point	not applicable	% Aromatics by weight	0%
% Volatile (by volume)	92%	pH	13.4
Flash point	None	Relative density	1.08 kg/l
Method	PM Closed Cup	Weight per volume	9.0 lbs/gal
Viscosity	< 20 cps	Coefficient (water/oil)	> 1
Autoignition temperature	not determined	Vapour density (air=1)	> 1
Decomposition temperature	no data available	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	not determined	Solubility in water	complete
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. Potassium hydroxide: reacts with some metals, such as aluminum, zinc and tin, forming highly flammable hydrogen gas.

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

Aluminum, Zinc and Tin; alloys of Aluminum, Zinc and Tin and strong oxidizers like liquid Chlorine and concentrated Oxygen.

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide and small amounts of Nitrous Oxides and other toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Primary route of exposure under normal use:** Skin and eye contact.**Acute toxicity -****Oral:** ATE-mix = 6354 mg/kg.

Substance	Test	Result
Potassium hydroxide	LD50, rat	365 mg/kg
Sodium carbonate	LD50, rat	4090 mg/kg
2-(2-Methoxyethoxy)ethanol	LD50, mouse	8222 mg/kg
Boric Acid, Monoethanolamine Salt + Boric acid, Monoisopropanolamine Salt	LD50, rat	1580 mg/kg

Dermal:

Substance	Test	Result
Sodium carbonate	LD50, rabbit	> 2000 mg/kg
2-(2-Methoxyethoxy)ethanol	LD50, rat	≈ 6450 mg/kg

Inhalation:

Substance	Test	Result
Sodium carbonate	LC50, rat, 2 h	2.3 mg/l
2-(2-Methoxyethoxy)ethanol	LC0, rat, 6 h	> 1.2 mg/l

Skin corrosion/irritation: Causes burns.

Substance	Test	Result
Potassium hydroxide	Skin irritation, rabbit	Corrosive

Serious eye damage/irritation:

Substance	Test	Result
Potassium hydroxide	Eye irritation, rabbit	Corrosive

Respiratory or skin sensitisation:

Potassium hydroxide, Sodium carbonate: based on available data, the classification criteria are not met.

Germ cell mutagenicity:

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

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.

Reproductive toxicity:

2-(2-Methoxyethoxy)ethanol: Suspected of damaging the unborn child. Potassium hydroxide, Sodium carbonate: based on available data, the classification criteria are not met.

STOT-single exposure:

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

STOT-repeated exposure: Hazardous ingredients: 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

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

No data available for the mixture. Many aquatic species are intolerant of pH levels in excess of 10.

12.2. Persistence and degradability

2-(2-Methoxyethoxy)ethanol: readily biodegradable. Potassium hydroxide, Sodium carbonate: inorganic substances. The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) N° 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Hazardous ingredients: not expected to bioaccumulate.

12.4. Mobility in soil

Liquid. Soluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). 2-(2-Methoxyethoxy)ethanol: expected to have very high mobility in soils.

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 or landfill absorbed material with a properly licensed facility. Free liquids may require neutralization and recovery of organics prior to disposal. Check local, state and national/federal regulations and comply with the most stringent requirement. This product is classified as a hazardous waste according to 2008/98/EC.

European List of Wastes code: 20 01 15

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

ADR/RID/ADN/IMDG/ICAO:	UN1814
TDG:	UN1814
US DOT:	UN1814

14.2. UN proper shipping name

ADR/RID/ADN/IMDG/ICAO:	POTASSIUM HYDROXIDE SOLUTION
TDG:	POTASSIUM HYDROXIDE SOLUTION
US DOT:	POTASSIUM HYDROXIDE SOLUTION

14.3. Transport hazard class(es)

ADR/RID/ADN/IMDG/ICAO:	8
TDG:	8
US DOT:	8

14.4. Packing group

ADR/RID/ADN/IMDG/ICAO:	II
TDG:	II
US DOT:	II

14.5. Environmental hazards

NO ENVIRONMENTAL HAZARDS

14.6. Special precautions for user

NO SPECIAL PRECAUTIONS FOR USER

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

NOT APPLICABLE

14.8. Other information

US DOT: ERG NO. 154

May be shipped as Limited Quantities in packaging having a rated capacity gross weight of 66 lb. or less and in inner packages not over 1 Liter (49 CFR 173.154 (b,1))

IMDG: EmS. F-A, S-B "Separated from Acids"
ADR: Classification code C5, Tunnel restriction code (E)

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: Regulation (EC) No 648/2004 on detergents. Directive 94/33/EC on the protection of young people at work.

15.1.2. National regulations**US EPA SARA TITLE III**

312 Hazards: Immediate
313 Chemicals: Glycol Ethers (Below De Minimis concentration)

Hazardous Materials Identification System (HMIS)

4 = Severe Hazard
3 = Serious Hazard
2 = Moderate Hazard
1 = Slight Hazard
0 = Minimal Hazard
* = See Section 8

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
Personal Protection	*

Other national regulations: National implementation of the EC Directive referred to in section 15.1.1.

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: 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
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)
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)
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)
Chemical Classification and Information Database (CCID)
European Chemicals Agency (ECHA) - Information on Chemicals
Hazardous Substances Information System (HSIS)
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:

Classification	Classification procedure
Skin Corr. 1B, H314	Calculation method

Relevant H-statements: H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H361d: Suspected of damaging the unborn child.

Relevant R-phrases: R22: Harmful if swallowed.
R35: Causes severe burns.
R36: Irritating to eyes.
R38: Irritating to skin.
R63: Possible risk of harm to the unborn child.

Hazard pictogram names: Flame, health hazard

Changes to the SDS in this revision: Sections 2.1.3, 2.2, 3, 8.1, 11, 16.

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.