MSDS ATTACHMENT

PLEASE ATTACH THIS COMPLETED SHEET TO THE MSDS FOR :

PRODUCT : **BONDERITE M-ZN 723C**

DATE :
(MSDS date) **06.07.2020**

1. Manufacturer/Supplier :

PPS Industries Limited
86 Hugo Johnston Drive, Auckland
New Zealand
P.O.Box 12823, Penrose, Auckland 1642
Phone : 64 9 579-1001
Facsimile : 64 9 579-9497
Emergency Phone : 0800 657-894
Website: www.ppsindustries.co.nz

Emergency Information :

National Poison Centre	0800 764-766
Chemcall 24/7 Emergency Response Service :	0800 243-622

13. Disposal Considerations :

Product
Recommendation - Consult local or national regulations to ensure proper disposal.

Packaging
Disposal must be made according to official regulations.

16. Other Information :

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Safety Data Sheet

BONDERITE M-ZN 723C ZINC PHOSPHATE known as Bonderite 723C 25Kg

SDS No. : 319336
V001.3
Revision: 06.07.2020
printing date: 24.11.2023

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: BONDERITE M-ZN 723C ZINC PHOSPHATE known as Bonderite 723C 25Kg

Intended use: Conversion coating

Supplier:

Henkel New Zealand Ltd
2 Allens Rd
Auckland, 2013
New Zealand
Phone: +64 (9) 272-6710

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classified as hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017
Classified as Dangerous Goods according to NZS 5433: 2012 and the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

Hazard Class	Hazard Category	Route of Exposure	Target organ
Acute toxicity	Category 4	Oral	
Acute toxicity	Category 4	Inhalation	
Acute toxicity	Category 4	Dermal	
Skin corrosion	Category 1B		
Serious eye damage/eye irritation	Category 1		
Respiratory sensitizer	Category 1		
Skin sensitizer	Category 1		
Germ cell mutagenicity	Category 1B		
Carcinogenicity	Category 1A		
Toxic to reproduction	Category 2		
Target Organ Systemic Toxicant - Single exposure	Category 3		respiratory tract irritation
Target Organ Systemic Toxicant - Repeated exposure	Category 2		
Acute hazards to the aquatic environment	Category 2		
Chronic hazards to the aquatic environment	Category 2		

Hazard pictogram:

Signal word: Danger

Hazard statement(s):

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H340 May cause genetic defects.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P285 In case of inadequate ventilation wear respiratory protection.

Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
P305+P351+P338+P315 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: Mixture

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Chromium trioxide	1333-82-0	3- < 5 %
ammonium bifluoride	1341-49-7	3- < 5 %
Nitric acid	7697-37-2	1- < 3 %
non hazardous ingredients~		60- < 90 %

SECTION 4 FIRST AID MEASURES

Ingestion:	If material is ingested, immediately contact a physician or poison control center. Have victim rinse mouth thoroughly with water. Do not induce vomiting.
Skin:	Immediately flush with large quantities of water for at least 15 minutes. Remove contaminated clothing. GET MEDICAL ATTENTION.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
Inhalation:	Immediately remove victim to fresh air. Keep warm and in a quiet place. Seek medical advice.
First Aid facilities:	Eye wash and safety shower
Medical attention and special treatment:	Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water fog.
Combustion behaviour:	Non-combustible.
Decomposition products in case of fire:	Decomposes with heat to produce oxides of nitrogen. Toxic fumes. May liberate hydrogen fluoride.
Particular danger in case of fire:	If evaporated to dryness, solid residue is an oxidizing agent and may cause spontaneous ignition of combustible materials. Violent reactions may occur with organic materials or reducing agents.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Additional fire fighting advice:	Collect contaminated fire fighting water separately. It must not enter drains. In case of fire, keep containers cool with water spray.
Hazchem code:	2X

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid skin and eye contact. Use personal protective equipment as described in Section 8.
Environmental precautions:	Collect contaminated washing water for appropriate disposal. Do not allow product to enter sewer or waterways. Inform authorities in the event of product spillage to water courses or sewage systems.
Clean-up methods:	Absorb the product with dry sand, vermiculite or other inert material. Put adsorbed material into suitable containers and remove them to a safe place, where it can be stored until disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

For industrial use only.
Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling.
The workplace should be equipped with an emergency shower and eye-rinsing facility.
Use good hygiene practices when handling this material, including changing and laundering work clothes after use. Discard contaminated shoes and leather goods.
Use only in well-ventilated areas.
Use personal protective equipment as described in Section 8.
When using do not eat, drink or smoke.

Conditions for safe storage:

Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.
Store away from incompatible materials identified in section 10.
Store in locked premises or with access restricted to especially instructed personnel.
Do not store on wooden pallets.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Ceiling	STEL (ppm)	STEL (mg/m3)
CHROMIUM (VI) COMPOUNDS, AS CR 1333-82-0			0.01			
CHROMIUM (VI) COMPOUNDS, AS CR, WATER SOLUBLE			0.01			
FLUORIDES, AS F 1341-49-7			2.5			
NITRIC ACID 7697-37-2		2	5.2			
NITRIC ACID					4	10

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Chromium trioxide 1333-82-0 [CHROMIUM (VI) WATER SOLUBLE FUME [BEL 2]]	Total chromium	Urine	Sampling time: Increase at end of 8-hour exposure.	10 µg/l	NZ BEI		
Chromium trioxide 1333-82-0 [CHROMIUM (VI) WATER SOLUBLE FUME]	Total chromium	Urine	Sampling time: End of shift at end of work week.	25 µg/l	NZ BEI		
Ammonium hydrogendifluoride 1341-49-7 [FLUORIDES]	Fluoride	Urine	Sampling time: Prior to shift.	2 mg/l	NZ BEI	The BEI is not applicable to non-metal fluorides and organic fluoride-containing compounds. As dietary and environmental factors can vary the fluoride body concentrations, repeated measurements are necessary. Biological levels of fluorides are indicators	
Ammonium hydrogendifluoride 1341-49-7 [FLUORIDES [BEL 2]]	Fluoride	Urine	Sampling time: End of shift.	3 mg/l	NZ BEI	The BEI is not applicable to non-metal fluorides and organic fluoride-containing compounds. As dietary and environmental factors can vary the	

						fluoride body concentrations, repeated measurements are necessary. Biological levels of fluorides are indicators	

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Eye protection: Safety goggles or safety glasses with side shields.
Use of a full face shield is recommended.

Skin protection: Chemical resistant, impermeable gloves.

The use of butyl rubber gloves is recommended.

Refer to glove manufacturer's recommendations and specifications.

Use of impervious apron and boots are recommended.

Respiratory protection: If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Orange-red clear, liquid
Odor:	None
pH:	< 1
Specific gravity:	1.04 - 1.06
Flash point:	Not applicable
Solubility in water:	fully miscible

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of temperature and pressure.

Conditions to avoid: Keep away from open flames, hot surfaces and sources of ignition.

Hazardous decomposition products: Oxides of nitrogen.

Hydrogen fluoride.

SECTION 11 TOXICOLOGICAL INFORMATION

Carcinogenicity: Category 1A (Carcinogen), May cause cancer.

Toxicity for reproduction: Toxic to reproduction, category 2, Suspected of damaging fertility or the unborn child.

Mutagenicity: Category 1B (Mutagen)

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Chromium trioxide 1333-82-0	LD50 Acute toxicity estimate (ATE) LC50 LD50	80 - 114 mg/kg 80 mg/kg 0.186 mg/l 57 mg/kg	oral oral inhalation dermal	4 h	rat rat rabbit	not specified Expert judgement OECD Guideline 403 (Acute Inhalation Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
ammonium bifluoride 1341-49-7	LD50	130 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Nitric acid 7697-37-2	LC50 Acute toxicity estimate (ATE)	> 2.65 mg/l 2.651 mg/l	inhalation inhalation	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity) Expert judgement

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Chromium trioxide 1333-82-0	corrosive	24 h	rabbit	not specified
ammonium bifluoride 1341-49-7	corrosive			not specified
Nitric acid 7697-37-2	corrosive			not specified

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Chromium trioxide 1333-82-0	corrosive		rabbit	not specified
Nitric acid 7697-37-2	corrosive			not specified

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Chromium trioxide 1333-82-0	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
ammonium bifluoride 1341-49-7	negative	bacterial reverse mutation assay (e.g Ames test)	no data		not specified
Nitric acid 7697-37-2	negative negative negative	bacterial reverse mutation assay (e.g Ames test) in vitro mammalian chromosome aberration test mammalian cell gene mutation assay	with and without with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Chromium trioxide 1333-82-0	NOAEL=0.0007 mg/l	inhalation	90 daystaeglich 20 Stunden	rat	not specified
Nitric acid 7697-37-2	NOAEL=1,500 mg/kg	oral: gavage	28 ddaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

SECTION 12. ECOLOGICAL INFORMATION

General ecological information: Do not empty into drains / surface water / ground water.

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Chromium trioxide 1333-82-0	LC50	52 mg/l	Fish	96 h	Carassius auratus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Chromium trioxide 1333-82-0	NOEC	0.105 mg/l	Fish	60 d	Salvelinus namaycush	OECD Guideline 210 (fish early lite stage toxicity test)
Chromium trioxide 1333-82-0	EC50	0.5 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Chromium trioxide 1333-82-0	EC0	1 mg/l	Bacteria			not specified
ammonium bifluoride 1341-49-7	LC50	421.4 mg/l	Fish	96 h	not specified	not specified
ammonium bifluoride 1341-49-7	NOEC	3.88 mg/l	Fish	61 d	Oncorhynchus gorbuscha	OECD Guideline 210 (fish early lite stage toxicity test)
ammonium bifluoride 1341-49-7	EC50	39 - 72 mg/l	Daphnia	96 h	other:	other guideline:
ammonium bifluoride 1341-49-7	EC50	9,043.28 mg/l	Algae	18 d	Chlorella vulgaris	not specified
ammonium bifluoride 1341-49-7	EC10	1,317 mg/l	Bacteria			ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
Nitric acid 7697-37-2	LC50	12.5 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Nitric acid 7697-37-2	EC50	4.6 mg/l	Daphnia	48 h	Ceriodaphnia dubia	other guideline:
Nitric acid 7697-37-2	EC50	> 1,000 mg/l	Bacteria	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal of product: Dispose of as hazardous waste in compliance with local and national regulations.
In consultation with the responsible local authority, must be subjected to special treatment: Neutralisation
In consultation with the responsible local authority, must be subjected to special treatment: Removal of heavy metals

Disposal for uncleaned package: Dispose of in accordance with local and national regulations.
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14. TRANSPORT INFORMATION

Land Transport:

UN no.:	3264
Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Chromic acid,Ammonium bifluoride)
Class or division:	8
Packing group:	II
Hazchem code:	2X

Marine transport IMDG:

UN no.:	3264
Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Chromic acid,Ammonium bifluoride)
Class or division:	8
Packing group:	II
EmS:	F-A ,S-B
Seawater pollutant:	Marine pollutant

Air transport IATA:

UN no.:	3264
Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (Chromic acid,Ammonium bifluoride)
Class or division:	8
Packing group:	II
Packing instructions (passenger)	851
Packing instructions (cargo)	855

SECTION 15. REGULATORY INFORMATION

New Zealand regulatory information:

Classified as hazardous according to the criteria of the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017

HSNO Approval Number: Group standard HSR002610

NZIoC: Compliant for NZIOC

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms: STEL - Short term exposure limit
TWA - Time weighted average
HSNO - Hazardous Substances and New Organisms
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

Reason for issue: Reviewed SDS. Reissued with new date. involved chapters: 2

Date of previous issue: 08.03.2020

Disclaimer:

The percentage weight (% w/w) of ingredients is not to be taken as a specification guaranteed by Henkel New Zealand Limited, but only as an approximate guide to the content of hazardous ingredients in the material. The information contained herein does not constitute a guarantee by Henkel New Zealand Limited concerning the properties of the material.

The information contained in this Safety Data Sheet is offered in good faith and has been developed from what is believed to be accurate and reliable sources. The information is offered without warranty, representation, inducement or licence and Henkel New Zealand Limited assumes no legal responsibility for reliance upon same. Henkel New Zealand Limited disclaims any liability for loss, injury or damage incurred in connection with the use of the material or its associated Safety Data Sheet.

This information is not to be construed as a representation that the material is suitable for any particular purpose or use except those conditions and warranties implied by Government statutes. Customers are encouraged to make their own enquiries as to the material's characteristics and, where appropriate, to conduct their own tests in the specific context of the material's intended use.

No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.