



Safety Data Sheet

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BONDERITE C-IC 2110 23.6KG

MSDS-No. : 382852

V001.3

Date of issue: 27.10.2015

Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: BONDERITE C-IC 2110 23.6KG

Intended use: Etch Cleaners

Supplier:

Henkel Australia Pty Ltd
135-141 Canterbury Road
Kilsyth, Victoria, 3137
Australia

Phone: +61 (3) 9724 6444

Emergency information: 24 HOUR EMERGENCY CONTACT NUMBER: 1800 032 379

Section 2. Hazards identification

Classification of the substance or mixture

Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

<u>Hazard Class</u>	<u>Hazard Category</u>	<u>Route of Exposure</u>
Corrosive to metals	Category 1	
Acute toxicity	Category 2	Oral
Acute toxicity	Category 3	Inhalation
Acute toxicity	Category 1	Dermal
Skin corrosion	Category 1A	
Serious eye damage	Category 1	

Hazard pictogram:



Signal word:

Danger

Hazard statement(s):	H290 May be corrosive to metals. H300+H310 Fatal if swallowed or in contact with skin. H331 Toxic if inhaled. H314 Causes severe skin burns and eye damage.
Precautionary Statement(s):	
Prevention:	P234 Keep only in original container. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P262 Do not get in eyes, on skin, or on clothing. 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. P280 Wear protective gloves/protective clothing.
Response:	P301+P310+P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. 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/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 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/doctor. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage.
Storage:	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner.
Disposal:	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Classification of material C - Corrosive T - Toxic

Risk phrases:

R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
R35 Causes severe burns.

Safety phrases:

S7/9 Keep container tightly closed and in a well-ventilated place.
S23 Do not breathe gas/fumes/vapour/spray.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27 Take off immediately all contaminated clothing.
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46 If swallowed, seek medical advice immediately and show this container or label.

Dangerous Goods information:

Classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Signal word:

HAZARDOUS

Section 3. Composition / information on ingredients**General chemical description:** Mixture**Identity of ingredients:**

Chemical ingredients	CAS-No.	Proportion
sulphuric acid...%	7664-93-9	10- 30 %
Hydrogen fluoride (HF)	7664-39-3	10- 30 %
Remainder not hazardous including water~		60- 100 %

Section 4. First aid measures

- Ingestion:** Do not induce vomiting, seek medical advice immediately.
- Skin:** Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.
Treat contaminated skin with Ca-gluconate gel (burn jelly).
Can penetrate into deeper parts of the skin and cause severe burns which are very painful and cure very slowly.
Remove contaminated clothing and footwear.
- Eyes:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Get immediate medical attention.
- Inhalation:** If inhaled, immediately remove the affected person to fresh air.
Delayed effects possible after inhalation.
Get medical attention.
- First Aid facilities:** Eye wash and safety shower
Normal washroom facilities
Calcium gluconate gel
- Medical attention and special treatment:** Treat symptomatically.

Ocular exposure to corrosive fluoride compounds has been treated with isotonic sodium chloride or magnesium chloride. Dermal exposure to corrosive fluoride compounds has been treated with calcium gluconate or calcium carbonate gel applied topically to the affected areas to relieve pain at the site of exposure.

Treatment of hypocalcemia associated with corrosive fluoride compounds exposure may be corrected by intravenous calcium gluconate or calcium chloride. Treatment of hypomagnesemia may be corrected by intravenous magnesium sulfate.

Section 5. Fire fighting measures

- Suitable extinguishing media:** Use dry chemical, water spray or carbon dioxide.
Foam
- Improper extinguishing media:** High pressure waterjet

Decomposition products in case of fire:: Thermal decomposition can lead to release of irritating gases and vapors.
Hydrogen fluoride
Oxides of sulfur.

Particular danger in case of fire:: May react with metals to form flammable hydrogen gas.

Special protective equipment for fire-fighters: Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Fire fighters should avoid

Additional fire fighting advice: In case of fire, keep containers cool with water spray.
Collect contaminated fire fighting water separately. It must not enter drains.

Hazchem code: 2X

Section 6. Accidental release measures

Personal precautions: Ensure adequate ventilation.
Avoid skin and eye contact.
Wear an approved respirator, impervious gloves and chemical splash goggles.
Keep unprotected persons away.
See advice in section 8

Environmental precautions: Do not empty into drains / surface water / ground water.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal.
Neutralize with lime milk
Flush contaminated area with water.
Isolate area. Keep unnecessary personnel away.

Section 7. Handling and storage

Precautions for safe handling: IN CASE OF CONTACT OR SUSPICION OF CONTACT, PROMPT MEDICAL ATTENTION IS ABSOLUTELY NECESSARY.
Do not inhale vapors and fumes.
Vapours should be extracted to avoid inhalation.
Avoid skin and eye contact.
Use personal protective equipment as described in Section 8.
The workroom should have emergency shower and possibility to flush eyes.

Conditions for safe storage: Store in sealed original container.
Store in a cool, dry, well-ventilated area.
Keep away from heat and direct sunlight.
Must be stored in the facility for the dangerous goods
Storage at 15 to 25°C is recommended.

Section 8. Exposure controls / personal protection

National exposure standards:

Ingredient [Regulated substance]	form of exposure	TWA (ppm)	TWA (mg/m3)	Peak Limit. (ppm)	Peak Limit. (mg/m3)	STEL (ppm)	STEL (mg/m3)
SULPHURIC ACID 7664-93-9			1	-	-	-	-
SULPHURIC ACID 7664-93-9		-	-	-	-		3
HYDROGEN FLUORIDE (AS F) 7664-39-3		-	-	3	2.6	-	-

Engineering controls:	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Eye protection:	Tightly fitting safety goggles Wear face shield.
Skin protection:	Suitable protective clothing Suitable protective gloves. Recommended gloves include butyl rubber and neoprene. Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.
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:	colourless to yellowish Clear
Odor:	None
Density:	1.16 - 1.20 g/cm ³

Section 10. Stability and reactivity

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Excessive heat. Protect from direct sunlight.
Incompatible materials:	Heat. Contact with most metals produces highly flammable hydrogen gas. Keep away from organic materials, combustible materials, alkalis and metals. Incompatible with oxidising agents. Can attack glass and vitreous materials.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Hydrogen fluoride. Oxides of sulfur.

Section 11. Toxicological information

Health Effects:**Ingestion:**

Very toxic if swallowed.

This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

Contains fluorides. Exposure to fluorides over years may cause fluorosis.

Ingestion of small amounts of this product may result in potentially fatal hypocalcemia and systemic toxicity. Ingestion of large amounts of this product may result in fluoride poisoning including symptoms of calcification of the ligaments and severe bone changes making normal movements painful, mottling of the teeth, pulmonary fibrosis, anemia, anorexia, dental effects, and possibly death.

Skin:

Also very toxic in contact with skin.

Corrosive to skin.

Symptoms may include redness, burning, drying, cracking and skin burns.

May be harmful or fatal if absorbed through skin.

Liquid or vapor can cause fluoride-type irritation or burns which may not be immediately painful or visible.

Eyes:

Causes serious eye damage.

Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Inhalation:

Toxic by inhalation.

Can cause severe irritation and burns to the respiratory tract.

Can cause pulmonary edema; signs and symptoms can be delayed for several hours.

Chronic effects:

Contains fluorides. Exposure to fluorides over years may cause fluorosis.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
sulphuric acid...% 7664-93-9	LD50	2,140 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
sulphuric acid...% 7664-93-9	corrosive			
Hydrogen fluoride (HF) 7664-39-3	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
sulphuric acid...% 7664-93-9	corrosive			

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Hydrogen fluoride (HF) 7664-39-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydrogen fluoride (HF) 7664-39-3	NOAEL=0,82 mg/m ³	inhalation: gas	6 h5 days/week	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)

Section 12. Ecological information

General ecological information:

Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems., Do not empty into drains / surface water / ground water.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
sulphuric acid...% 7664-93-9	LC50	794 mg/l	Fish			OECD Guideline 203 (Fish, Acute Toxicity Test)
sulphuric acid...% 7664-93-9	EC50	29 mg/l	Daphnia	24 h	Daphnia magna	ISO 6341 15 (Water quality)
sulphuric acid...% 7664-93-9	EC50	> 50 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
sulphuric acid...% 7664-93-9	EC0	6,900 mg/l	Bacteria	24 h		
Hydrogen fluoride (HF) 7664-39-3	LC50	107.5 mg/l	Fish	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrogen fluoride (HF) 7664-39-3	EC50	270 mg/l	Daphnia	48 h	Daphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hydrogen fluoride (HF) 7664-39-3	EC10	650 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrogen fluoride (HF) 7664-39-3	EC50	> 1,000 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrogen fluoride (HF) 7664-39-3	EC10	231 mg/l	Bacteria	16 h		

Section 13. Disposal considerations

Waste disposal of product:

In consultation with the responsible local authority, must be subjected to special treatment: Neutralisation

Recommended cleanser:

Clean the packaging with water.

Disposal for uncleaned package:

Collection and delivery to recycling enterprise or other registered elimination institution.

Section 14. Transport information

Road and Rail Transport:

Dangerous Goods information:

Classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

UN no.:

2922

Proper shipping name:

CORROSIVE LIQUID, TOXIC, N.O.S. (Hydrofluoric acid, Sulphuric acid)

Class or division:

8 (6.1)

Packing group:

II

Hazchem code: 2X
Emergency information: Refer to the Dangerous Goods - Initial Emergency Response Guide HB 76.

Marine transport IMDG:

UN no.: 2922
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (Hydrofluoric acid,Sulphuric acid)
Class or division: 8 (6.1)
Packing group: II
EmS: F-A ,S-B
Seawater pollutant: -

Air transport IATA:

UN no.: 2922
Proper shipping name: Corrosive liquid, toxic, n.o.s. (Hydrofluoric acid,Sulphuric acid)
Class or division: 8 (6.1)
Packing group: II
Packing instructions (passenger): 851
Packing instructions (cargo): 855

Section 15. Regulatory information

SUSMP Poisons Schedule 7

AICS: All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICS).

Section 16. Other information

Abbreviations/acronyms: ADGC - Australian Dangerous Goods Code
STEL - Short term exposure limit
TWA - Time weighted average
IMDG: International Maritime Dangerous Goods code
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

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Disclaimer:

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