Safety Data Sheet

BONDERITE M-NT 5200 MU CR FREE CONVERSION COATING known as ALODINE 5200 MAKE UP (20LT)

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SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: BONDERITE M-NT 5200 MU CR FREE CONVERSION COATING known as ALODINE 5200 MAKE UP (20LT)

Intended use: Conversion coating

Supplier:

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

Emergency Telephone for Chemical Accidents: 24 HOUR EMERGENCY CONTACT NUMBER 0800 243 622

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).
Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

GHS Classification:

Hazard Class	Hazard Category
Skin irritation	Category 2
Serious eye damage/eye irritation	Category 1

Hazard pictogram:



Signal word: Danger

Hazard statement(s):
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary Statement(s):

Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves, eye protection, and face protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338+P315 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Get immediate medical advice/attention.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

General chemical description: Mixture

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
dihydrogen hexafluorotitanate(2-)	17439-11-1	1- < 3 %
1-Propoxypropan-2-ol	1569-01-3	1- < 10 %
Dihydrogen hexafluorozirconate(2-)	12021-95-3	0.1- < 1 %
non hazardous ingredients~		60- <= 100 %

SECTION 4 FIRST AID MEASURES

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel.
Seek medical advice.

Skin: Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Inhalation: Move to fresh air in case of accidental inhalation of vapours.
If adverse health effects develop seek medical attention.

First Aid facilities: Eye wash and safety shower
Normal washroom facilities
Calcium gluconate gel

Medical attention and special treatment: Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Use media appropriate for surrounding material.

Combustion behaviour: Non-flammable (aqueous solution).

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

Special protective equipment for fire-fighters: Wear full protective clothing.
Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).

Additional fire fighting advice: In case of fire, keep containers cool with water spray.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: See advice in section 8
Avoid contact with skin and eyes.
Danger of slipping on spilled product.

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

Clean-up methods: Dike the spilled material, where this is possible.
Neutralize acid using lime or a lime based agent compatible with the product.
Absorb spill with inert material. Shovel material into appropriate container for disposal.
Wash away residue with plenty of water.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: See advice in section 8
Avoid contact with eyes, skin and clothing.
Wear suitable protective clothing, safety glasses and gloves.

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.
Storage at 15 to 25°C is recommended.

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)
FLUORIDES, AS F 17439-11-1			2.5	-	-	-
Fluorides, as F			2.5	-	-	-
Fluorides, as F 12021-95-3			2.5	-	-	-
Zirconium and compounds, as Zr			5	-	-	-
Zirconium and compounds, as Zr		-	-	-		10

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Dihydrogen hexafluorotitanate(2-) 17439-11-1 [FLUORIDES]	Fluoride	Urine	Sampling time: Prior to shift.	3 mg/l	NZ BEI		
Dihydrogen hexafluorotitanate(2-) 17439-11-1 [FLUORIDES [BEL 2]]	Fluoride	Urine	Sampling time: End of shift.	10 mg/l	NZ BEI		
Dihydrogen hexafluorotitanate(2-) 17439-11-1 [Fluorides]	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	
Dihydrogen hexafluorotitanate(2-) 17439-11-1 [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	
Dihydrogen hexafluorozirconate(2-) 12021-95-3 [Fluorides]	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	
Dihydrogen hexafluorozirconate(2-) 12021-95-3 [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	

Engineering controls: Ensure good ventilation/suction at the workplace.

Eye protection: Wear safety glasses with side shields.

Skin protection: Wear suitable protective clothing.
Use of Butyl or Nitrile Rubber gloves is recommended.
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: brown
clear
Odor: mild
pH: 1.3

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of temperature and pressure.

Conditions to avoid: Keep away from heat, ignition sources and incompatible materials.

Incompatible materials: Keep away from organic materials, combustible materials, alkalis and metals.
Oxidizing agents.

Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapors.

Oxides of nitrogen.
Hydrogen fluoride
Irritating vapours.

SECTION 11 TOXICOLOGICAL INFORMATION

Health Effects:
Ingestion: Ingestion of large quantities may cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Skin: Causes skin irritation.
Eyes: Causes serious eye damage.
Inhalation: Inhalation of mist or spray may cause irritation of the respiratory tract and nasal passages.

Skin irritation: Result: Category 2 (irritant)

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
1-Propoxypropan-2-ol 1569-01-3	LD50 LD50	2,490 mg/kg 3,775 mg/kg	oral dermal		rat rabbit	OECD Guideline 401 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1-Propoxypropan-2-ol 1569-01-3	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1-Propoxypropan-2-ol 1569-01-3	Category 2 (irritant)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
dihydrogen hexafluorotitanate(2-) 17439-11-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
1-Propoxypropan-2-ol 1569-01-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
dihydrogen hexafluorotitanate(2-) 17439-11-1	negative negative	bacterial reverse mutation assay (e.g Ames test) mammalian cell gene mutation assay	with and without with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay) OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
dihydrogen hexafluorotitanate(2-) 17439-11-1	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
1-Propoxypropan-2-ol 1569-01-3	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
dihydrogen hexafluorotitanate(2-) 17439-11-1	NOAEL=ca. 25 ppm	oral: gavage	28 daysonce per day	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
1-Propoxypropan-2-ol 1569-01-3		inhalation	6 hours per day5 days per week	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

SECTION 12. ECOLOGICAL INFORMATION

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

Ecotoxicity:

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
dihydrogen hexafluorotitanate(2-) 17439-11-1	LC50	172.4 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
dihydrogen hexafluorotitanate(2-) 17439-11-1	NOEC	4 mg/l	Fish	21 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early lite stage toxicity test)
dihydrogen hexafluorotitanate(2-) 17439-11-1	EC50	48.2 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
dihydrogen hexafluorotitanate(2-) 17439-11-1	EC50	10.82 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
dihydrogen hexafluorotitanate(2-) 17439-11-1	EC10	1.31 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
dihydrogen hexafluorotitanate(2-) 17439-11-1	NOEC	231 mg/l	Bacteria	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
1-Propoxypropan-2-ol 1569-01-3	LC50	1,732 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	ISO 7346-1 (Determination of the Acute Lethal Toxicity of Substances to a Freshwater Fish [Brachydanio rerio Hamilton-Buchanan (Teleostei, Cyprinidae)]
1-Propoxypropan-2-ol 1569-01-3	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	other guideline:
1-Propoxypropan-2-ol 1569-01-3	EC50	1,466 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
1-Propoxypropan-2-ol 1569-01-3	EC0	1,000 mg/l	Bacteria	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Dihydrogen hexafluorozirconate(2-) 12021-95-3	LC50	172.4 mg/l	Fish	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Dihydrogen hexafluorozirconate(2-) 12021-95-3	EC50	151.4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Dihydrogen hexafluorozirconate(2-) 12021-95-3	EC50	10.66 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dihydrogen hexafluorozirconate(2-) 12021-95-3	EC10	1.63 mg/l	Algae	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

1-Propoxypropan-2-ol 1569-01-3	readily biodegradable	aerobic	91.5 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

Bioaccumulative potential / Mobility in soil:

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
dihydrogen hexafluorotitanate(2-) 17439-11-1		53 - 58		not specified		other guideline:
1-Propoxypropan-2-ol 1569-01-3	0.621				20 °C	QSAR (Quantitative Structure Activity Relationship)

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: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14. TRANSPORT INFORMATION

Dangerous Goods information:

Land Transport:
Not classified as Dangerous Goods under the Land Transport Rule: Dangerous Goods 2005.

Marine transport IMDG:
Not dangerous goods

Air transport IATA:
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

New Zealand regulatory information:
Classified as hazardous under the New Zealand Hazardous Substances and New Organisms Act (HSNO).

HSNO Approval Number: HSR002670

Site and Storage: Refer to the site and storage requirements for this Group Standard.
Refer to the HSNO controls for approved hazardous substances.

NZIoC: All components are listed or are exempt from listing on the New Zealand Inventory of Chemicals (NZIoC)

SECTION 16. OTHER INFORMATION

Abbreviations/acronyms:

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

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Disclaimer:

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