

02/4/2009

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Brand name **SEALCORE**

1.2 Manufacturer

Dynaweld Industrial Supplies Pty Ltd
123 Fairford Rd
Padstow NSW 2211
Australia
Ph: +61 2 9772 1144
Fx: +61 2 9774 1685

1.3 Product use

Flux-cored aluminium-silicon rods for welding pure aluminium and silicon aluminium alloys

2 CHEMICAL COMPOSITION AND INFORMATION ON INGREDIENTS

2.1 Chemical composition

Alloy

	Si	Fe	Cu	Mn	Mg	Zn	Ti	Cr	V	tot altri	Cad altri	Al
Min	4,0											
Max	5,0	0,60	0,05	0,05	0,05	0,10	0,15	-	0,05	0,15	0,05	bal

Flux

Sodium Chloride	CAS N° 7647-14-5	15-45 %
Zinc Chloride	CAS N° 7646-85-7	10-25 %
Potassium Chloride	CAS N° 7447-40-7	30-50 %
Lithium Chloride	CAS N° 7447-41-8	10-25 %

2.2 Information on ingredients.

Component	CAS. No	Form	TWA in mg/m ³	
			ACGIH TLV	OSHA PEL
Al	7429-90-5	Total dust, fume	15.5	15
		Respirable	-	5
Be	7440-41-7	All compounds as Be	0.002	0.002, 0.005
Cu	7440-50-8	Fume	0.2	0.1
		Dust/mist	1	1
Fe	7439-89-6	Oxide dust & fume (as Fe)	5	10

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Component	CAS. No	Form	TWA in mg/m ³	
			ACGIH TLV	OSHA PEL
Pb (no fumes)	7439-92-1	Elementar and inorganic compounds	0.05	0.05
Mg	7439-95-4	Oxide fume	10	15
Mn	7439-96-5	Dust fume	0.2	
Ga	7440-55-3			-
Ni	7440-02-0	Metal & insoluble compounds	1 Ni	1 Ni
		Soluble compounds	0.1 Ni	1 Ni
Si	7440-21-3	Total dust	10	15
		Respirable	-	5
Ti	7440-32-6	Oxide dust	10	15
V	7440-62-2	Respirable dust	0.05 V ₂ O ₅	0.5
		Respirable fume		0.1
Zn	7440-66-6	Oxide fume	5, 10	5
		Total oxide fume	10	15
		Respirable oxide fume	-	5
Zr	7440-67-7		5, 10	5
Cr	7440-47-3	Metalli	0.5	1.0
		Compounds :Cr II	-	0.5 Cr
		Cr III	0.5 Cr	0.5 Cr
		Cr VI water soluble	0.05 Cr	0.1 CrO ₃
		Cr VI water insoluble	0.01 Cr	0.1 CrO ₃
Possible hazards during product use			ACGIH TLV	OSHA PEL
Ozone			0.1 ppm-ceiling	0.1 ppm
Nitric oxide			25 ppm	25 ppm
Nitrogen oxide			3.5 ppm-STEEL	5 ppm-ceiling
Welding fumes			5 mg/m ³	-

3 HAZARD INFORMATION

- 3.1 Physical/chemical hazards : Non flammable as supplied.
- 3.2 Environmental hazards : not available.
- 3.3 Man health hazards

Eyes : fume can cause irritation.
 Skin : can cause irritation. Flame can cause burns.
 Inhalation : can cause respiratory tract irritation.

Hazardous elements are listed by International Agency for Research on Cancer (IARC).

- Welding fumes; are listed as an IARC Group 2B.

4 FIRST AID MEASURES

- Ingestion : not applicable.
- Inhalation : remove victim to fresh air. Keep victim at rest. Get medical attention.
- Skin contact : remove contaminated clothing. Wash off plenty of water and soap. Immediately get medical attention.

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- Eye contact : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Immediately get medical attention.

5 FIRE FIGHTING MEASURES

- 5.1 Flammable properties : Non flammable as supplied. Small chips, fine turnings and dust from processing may ignite readily.
- 5.2 Special fire fighting procedures : not applicable
- 5.3 Protection of fire-fighters : full protective clothing. Self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

- Personal precautions** : if molten use appropriate protection .
Do not use shovels or hand tools to halt the flow molten Al. Contain the flow using dry sand or salt flux as a dam. Keep away from sources of ignition. No smoking.
- Environmental precautions** : if molten, do not allow to enter sewerage system or other bodies of water. Contain the flow using dry sand or salt flux as a dam.
- Methods for cleaning up** : if molten, allow the spill to cool. Collect spilled material in sealable containers. Forward for disposal. The spilled material can be remelted as a scrap.

7 HANDLING AND STORAGE

- Handling** : normal precautions in non-molten conditions.
- Storage** : keep container tightly closed in a cool, well-ventilated place to avoid moisture and dust.

8 EXPOSURE CONTROL/PERSONAL PROTECTION

- 8.1 Engineering measures : project appropriate ventilation and respiratory to meet the limits listed in point 2 of this MSDS.
- 8.2 Hygienic measures : when using do not eat, drink or smoke. Wash hands after working.
- 8.3 Personal protective equipment
Respiratory system : in case of insufficient ventilation, wear suitable respiratory equipment (Airpurifying respirator with organic vapour cartridge)
- Skin and body : impervious clothing.
- Hands : rubber gloves or neoprene gloves.
- Eyes : use helmet, face shield , filter lens and other appropriate equipment to prevent eye irritation or flash burns.

9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : solid

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Colour	: silvery
Odour	: odourless
Boiling point	: not applicable
Melting point solidus	: 571 °C – 1060 °F
Melting point liquidus	: 633 °C – 1171 °F
Density	: [2.64 – 2.72] g/cm ³
PH	: not applicable
Solubility in water	: not soluble
Flash point	: not applicable
Autoignition temperature	: not applicable

10 STABILITY AND REACTIVITY

- Stability : stable under normal conditions
- Conditions and material to avoid : molten Al can react violently/explosively with water or moisture, particularly when the water is entrapped.

11 TOXICOLOGICAL INFORMATION

Oral	: not applicable
Dermal	: -
Eye irritation	: -

12 ECOLOGICAL INFORMATION

The disposal of have to be in accordance to the local legislation.

13 DISPOSAL CONSIDERATIONS

Generally packing does not present residues after welding or metallizing.
Collect scrap for remelting and recycling. In any case the disposal have to be in accordance to the local legislation.

14 TRANSPORT INFORMATION

No regulated.

15 REGULATORY INFORMATION

Not regulated. Only for oxyfuel welding.

16 OTHER INFORMATION

- Before welding, keep attention to eliminate moisture on the surfaces of the base and filler metal.
- Arrange in advance a smoke aspiration system.

16.1 Producer note.

Every responsibility caused by the process are rule out.

Training : welder should be trained to avoid the improper use of the product. Dynaweld Industrial
Use : read the instruction on the Technical Date Sheet or technical books. Supplies Pty Ltd
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