

## SAFETY DATA SHEET

# 2712

Product Name **BOC WELD-GUARD STAINLESS STEEL PASSIVATING GEL**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier name** BOC LIMITED (AUSTRALIA)  
**Address** 10 Julius Avenue, North Ryde, NSW, 2113, AUSTRALIA  
**Telephone** 131 262, (02) 8874 4400  
**Fax** 132 427 (24 hours)  
**Emergency** 1800 653 572 (24/7) (Australia only)  
**Web site** <http://www.boc.com.au/>  
**Synonym(s)** 2712 - SDS NUMBER • CALLINGTON HAVEN • STEEL PASSIVATING PASTE • WELD-GUARD STAINLESS STEEL PASSIVATING GEL  
**Use(s)** PASSIVATOR  
**SDS date** 10 February 2014

### 2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

#### RISK PHRASES

R8 Contact with combustible material may cause fire.  
R35 Causes severe burns.

#### SAFETY PHRASES

S23 Do not breathe gas/fumes/vapour/spray (where applicable).  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
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).

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

**UN number** 1760 **DG class** 8  
**Packing group** II **Subsidiary risk(s)** None Allocated  
**Hazchem code** 2X

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Identification	Classification	Content (v/v)
NITRIC ACID	CAS: 7697-37-2 EC: 231-714-2	C;R35 O;R8	10 to 30%
WATER	CAS: 7732-18-5 EC: 231-791-2	Not Available	>60%
ADDITIVE(S)	Not Available	Not Available	1 to 10%

### 4. FIRST AID MEASURES

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

<b>Inhalation</b>	If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
<b>Ingestion</b>	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
<b>Advice to doctor</b>	Treat symptomatically. For acute or short term repeated exposures to strong acids: Airway problems may arise from laryngeal oedema and inhalation exposure. Treat with 100 % oxygen initially. Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling. Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise. Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues. Ingestion: Immediate dilution (milk or water) within 30 minutes post ingestion is recommended. Do not attempt to neutralise the acid since exothermic reaction may extend the corrosive injury. Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to on or two glasses in an adult. Charcoal has no place in acid management. Some authors suggest the use of lavage within 1 hour of ingestion. Skin: Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping. Deep second-degree burns may benefit from topical silver sulphadiazine. Eye: Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20 to 30 minutes. Do not use neutralising agents or any other additives. Several litres of saline are required. Cycloplegic drops (1 % cyclopentolate for short-term use or 5 % homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury. Steroid eye drops should only be administered with the approval of a consulting ophthalmologist.
<b>First aid facilities</b>	Eye wash facilities and safety shower should be available.

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## 5. FIRE FIGHTING MEASURES

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<b>Flammability</b>	Non flammable. May evolve toxic gases (nitrogen oxides) when heated to decomposition. May ignite combustible materials. May evolve flammable hydrogen gas in contact with some metals.
<b>Fire and explosion</b>	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
<b>Extinguishing</b>	Use an extinguishing agent suitable for the surrounding fire.
<b>Hazchem code</b>	2X 2      Water Fog (or fine water spray if fog unavailable) X      Full protective clothing including Self Contained Breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions</b>	Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.
<b>Environmental precautions</b>	Prevent product from entering drains and waterways.
<b>Methods of cleaning up</b>	Contain spillage, then cover / absorb spill with sodium bicarbonate or 50-50 mixture of sodium carbonate and calcium hydroxide. Collect for complete neutralisation and appropriate disposal.
<b>References</b>	See Sections 8 and 13 for exposure controls and disposal.

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## 7. STORAGE AND HANDLING

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<b>Storage</b>	Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should be bunded and have appropriate fire protection and ventilation systems.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Nitric acid	SWA (AUS)	2	5.2	4	10

**Biological limits**

No biological limit allocated.

**Engineering controls**

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE****Eye / Face**

Wear a faceshield and splash-proof goggles.

**Hands**

Wear PVC or rubber gloves.

**Body**

Wear coveralls. When using large quantities or where heavy contamination is likely, wear rubber boots and a PVC apron.

**Respiratory**

Where an inhalation risk exists, wear an Air-line respirator or a Type B (Inorganic gases and vapours) respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	VISCOUS WHITE GEL
Odour	SLIGHT ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	< 1 (Neat)
Vapour density	NOT AVAILABLE
Specific gravity	1.20
Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	OXIDISING LIQUID
Odour threshold	NOT AVAILABLE
% Volatiles	NOT AVAILABLE

## 10. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended conditions of storage.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to avoid	Incompatible (violently) with combustible materials, metals, reducing agents (eg. sulphites), alkalis (eg. sodium hydroxide), ammonia, heat and ignition sources.
Hazardous Decomposition Products	May evolve nitrogen oxides when heated to decomposition.
Hazardous Reactions	Polymerization is not expected to occur.

**11. TOXICOLOGICAL INFORMATION**

<b>Health Hazard Summary</b>	Highly corrosive - toxic. This product has the potential to cause serious adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure may result in severe and permanent eye, skin and respiratory damage.	
<b>Eye</b>	Highly corrosive. Contact may result in irritation, lacrimation, pain, redness and corneal burns with possible permanent damage.	
<b>Inhalation</b>	Corrosive - toxic. Over exposure may result in irritation of the nose and throat, coughing and bronchitis. High level exposure may result in ulceration of the respiratory tract, lung tissue damage, chemical pneumonitis and pulmonary oedema. Effects may be delayed.	
<b>Skin</b>	Corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Effects may be delayed.	
<b>Ingestion</b>	Highly corrosive - toxic. Ingestion may result in severe burns to the mouth and throat, vomiting, abdominal pain, ulceration of the gastrointestinal tract, convulsions and death.	
<b>Toxicity data</b>	NITRIC ACID (7697-37-2) LDLo (ingestion)	430 mg/kg (human)

**12. ECOLOGICAL INFORMATION**

<b>Toxicity</b>	No information provided.
<b>Persistence and degradability</b>	No information provided.
<b>Bioaccumulative potential</b>	No information provided.
<b>Mobility in soil</b>	No information provided.
<b>Other adverse effects</b>	SOIL: Nitric acid will dissolve the carbonate based materials in the soil. WATER: A significant amount will reach the water table where dilution and dispersion serve to reduce the acid concentration. The elevated nitrate levels stimulates aquatic plant growth.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste disposal</b>	Wearing the protective equipment detailed above, neutralise to pH 6-8 by SLOW addition to a saturated sodium bicarbonate solution or similar basic solution. Dilute with excess water and flush to drain. Waste disposal should only be undertaken in a well ventilated area.
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<b>UN number</b>	1760	1760	1760
<b>Proper shipping name</b>	CORROSIVE LIQUID, N.O.S. (contains nitric acid)		
<b>DG class/ Division</b>	8	8	8
<b>Subsidiary risk(s)</b>	None Allocated	None Allocated	None Allocated
<b>Packing group</b>	II	II	II
<b>GTEPG</b>	8A1		
<b>Hazchem code</b>	2X		
<b>EMS</b>	F-A, S-B		

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**15. REGULATORY INFORMATION**

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Poison schedule	Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Inventory Listing(s)	<b>AUSTRALIA: AICS (Australian Inventory of Chemical Substances)</b> All components are listed on AICS, or are exempt.

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**16. OTHER INFORMATION**

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Additional information	ACIDS: When mixing acids with water (diluting), caution must be taken as heat will be generated which causes violent spattering. Always add a small volume of acid to a large volume of water, NEVER the reverse.
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RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations	ACGIH	American Conference of Governmental Industrial Hygienists
	CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
	CNS	Central Nervous System
	EC No.	EC No - European Community Number
	GHS	Globally Harmonized System
	IARC	International Agency for Research on Cancer
	LD50	Lethal Dose, 50% / Median Lethal Dose
	mg/m <sup>3</sup>	Milligrams per Cubic Metre
	OEL	Occupational Exposure Limit
	PEL	Permissible Exposure Limit
	pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
	ppm	Parts Per Million
	REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
	STEL	Short-Term Exposure Limit
	STOT-RE	Specific target organ toxicity (repeated exposure)
	STOT-SE	Specific target organ toxicity (single exposure)
	SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
	SWA	Safe Work Australia
	TLV	Threshold Limit Value
	TWA	Time Weighted Average

**Revision history**

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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**End of SDS**