



Nonfood Compounds  
Program Listed P1  
150170

# TB-90 MARKING FLUID FOR STAINLESS STEEL

# TIG Brush®

by  ensitech®

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** TB-90 MARKING FLUID FOR STAINLESS STEEL (AU)  
**Synonym(s)** MARKING FLUID FOR STAINLESS STEEL • TB90 MARKING FLUID FOR STAINLESS STEEL

#### 1.2 Uses and uses advised against

**Use(s)** MARKING STAINLESS STEEL WITH THE TIG BRUSH

#### 1.3 Details of the supplier of the product

**Supplier name** ENSITECH PTY LTD (AU)  
**Address** 1/144 Old Bathurst Rd, EMU PLAINS, NSW, 2750, AUSTRALIA  
**Telephone** +61 2 4735 7700  
**Fax** +61 2 4735 7744  
**Website** [www.tigbrush.com](http://www.tigbrush.com)

#### 1.4 Emergency telephone number(s)

**Emergency** +1 352-323-3500

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO AUSTRALIAN WHS REGULATIONS

**GHS classification(s)** Serious Eye Damage / Eye Irritation: Category 2A  
Skin Corrosion/Irritation: Category 2

#### 2.2 Label elements

**Signal word** WARNING

**Pictogram(s)**



#### Hazard statement(s)

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

#### Prevention statement(s)

P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Response statement(s)

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Specific treatment is advised - see first aid instructions.  
P332 + P337 + P313 If skin or eye irritation occurs: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before re-use.

#### Storage statement(s)

None allocated.

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**Disposal statement(s)**

None allocated.

**2.3 Other hazards**

No information provided.

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**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

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**3.1 Substances / Mixtures**

Ingredient	CAS Number	EC Number	Content
SODIUM NITRATE	7631-99-4	231-554-3	5 to 15%
POTASSIUM NITRATE	7757-79-1	231-818-8	1 to 10%
NITRIC ACID	7697-37-2	231-714-2	<5%
WATER	7732-18-5	231-791-2	>70%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

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**4. FIRST AID MEASURES**

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**4.1 Description of 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.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin** 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.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**First aid facilities** No information provided.

**4.2 Most important symptoms and effects, both acute and delayed**

Acute: Irritating to the eyes and skin. Delayed: No information available.

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically. Absorption of nitrates into the body may cause methaemoglobinemia, which in sufficient concentration will cause cyanosis (i.e. blue-greyish discolouration of the skin), as the oxidised haemoglobin is incapable of transporting oxygen around the body. Treat by oxygen inhalation and rest. Cleanse entire body of contamination, including scalp and nails. If breathing has stopped apply artificial respiration immediately. In the event of cardiac arrest, apply external cardiac massage.

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**5. FIRE FIGHTING MEASURES**

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**5.1 Extinguishing media**

Use an extinguishing agent suitable for the surrounding fire.

**5.2 Special hazards arising from the substance or mixture**

Oxidising agent - supports combustion. May evolve toxic gases when heated to decomposition. May ignite in contact with incompatible materials.

**5.3 Advice for firefighters**

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.

**5.4 Hazchem code**

None allocated.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

### 6.2 Environmental precautions

Prevent product from entering drains and waterways.

### 6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

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.

### 7.2 Conditions for safe storage, including any incompatibilities

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.

### 7.3 Specific end use(s)

No information provided.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### 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 values have been entered for this product.

### 8.2 Exposure controls

**Engineering controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

#### PPE

<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear PVC or rubber gloves.
<b>Body</b>	When using large quantities or where heavy contamination is likely, wear coveralls.
<b>Respiratory</b>	Not required under normal conditions of use.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	CLEAR BLUE LIQUID
<b>Odour</b>	FRESH ODOUR

**9.1 Information on basic physical and chemical properties**

<b>Flammability</b>	NON FLAMMABLE
<b>Flash point</b>	NOT RELEVANT
<b>Boiling point</b>	> 100°C
<b>Melting point</b>	< 0°C
<b>Evaporation rate</b>	AS FOR WATER
<b>pH</b>	3 - 4
<b>Vapour density</b>	NOT AVAILABLE
<b>Specific gravity</b>	1.05
<b>Solubility (water)</b>	SOLUBLE
<b>Vapour pressure</b>	18 mm Hg @ 20°C
<b>Upper explosion limit</b>	NOT RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

**9.2 Other information**

<b>% Volatiles</b>	> 60 % (Water)
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**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

Carefully review all information provided in sections 10.2 to 10.6.

**10.2 Chemical stability**

Stable under recommended conditions of storage.

**10.3 Possibility of hazardous reactions**

Polymerization will not occur.

**10.4 Conditions to avoid**

Avoid heat, sparks, open flames and other ignition sources.

**10.5 Incompatible materials**

Oxidising agent. May form toxic N-nitrosamines (suspected carcinogens) when mixed with amines and acids. Incompatible with acids (eg phthalic acid), metallic salts, amines, organics and reducing agents (eg disulphides).

**10.6 Hazardous decomposition products**

May evolve toxic gases when heated to decomposition.

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity**

**Information available for the product:**

Based on available data, the classification criteria are not met.

**Information available for the ingredient(s):**

Ingredient	Oral Toxicity (LD50)	Dermal Toxicity (LD50)	Inhalation Toxicity (LC50)
SODIUM NITRATE	1276 mg/kg (rat)	--	--
POTASSIUM NITRATE	1901 mg/kg (rabbit)	--	--

**Skin** Irritating to the skin. Contact may result in irritation, redness, rash and dermatitis.

**Eye** Irritating to the eyes. Contact may result in irritation, lacrimation, pain and redness. May result in burns with prolonged contact.

**Sensitization** Not classified as causing skin or respiratory sensitisation.

**Mutagenicity** Insufficient data available to classify as a mutagen.

**Carcinogenicity** Insufficient data available to classify as a carcinogen.

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<b>Reproductive</b>	Insufficient data available to classify as a reproductive toxin.
<b>STOT – single exposure</b>	Not classified as causing organ damage from single exposure. However, over exposure to nitrates may result in respiratory irritation, coughing, headache, nausea, shortness of breath, drop in blood pressure with rapid pulse and visual disturbances.
<b>STOT – repeated exposure</b>	Not classified as causing organ damage from repeated exposure. Adverse effects are generally associated with single exposure.
<b>Aspiration</b>	Not classified as causing aspiration.

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**12. ECOLOGICAL INFORMATION**

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**12.1 Toxicity**

Not expected to be harmful to the environment if released in small amounts.

**12.2 Persistence and degradability**

Expected to be biodegradable.

**12.3 Bioaccumulative potential**

Not expected to bioaccumulate.

**12.4 Mobility in soil**

The product is soluble in water.

**12.5 Other adverse effects**

No information provided.

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**13. DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

<b>Waste disposal</b>	Add to a large volume of reducing solution (eg thiosulphate, metabisulphite, but not carbon, sulphur or strong reducer) and acidify with 3M sulphuric acid. When reduction is complete, add mixture to water and neutralise. Absorb with sand or similar non-combustible material and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).
<b>Legislation</b>	Dispose of in accordance with relevant local legislation.

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**14. TRANSPORT INFORMATION**

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**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA**

	<b>LAND TRANSPORT (ADG)</b>	<b>SEA TRANSPORT (IMDG / IMO)</b>	<b>AIR TRANSPORT (IATA / ICAO)</b>
<b>14.1 UN Number</b>	None Allocated	None Allocated	None Allocated
<b>14.2 Proper Shipping Name</b>	None Allocated	None Allocated	None Allocated
<b>14.3 Transport hazard class</b>	None Allocated	None Allocated	None Allocated
<b>14.4 Packing Group</b>	None Allocated	None Allocated	None Allocated

**14.5 Environmental hazards** No information provided

**14.6 Special precautions for user**

**Hazchem code** None Allocated

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**15. REGULATORY INFORMATION**

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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>Poison schedule</b>	Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Classifications</b>	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.  The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

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<b>Hazard codes</b>	Xi	Irritant
<b>Risk phrases</b>	R36/38	Irritating to eyes and skin.
<b>Safety phrases</b>	S24/25 S37/39 S45	Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
<b>Inventory listing(s)</b>	<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** 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
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline).
ppm	Parts Per Million
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

**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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