1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: TB-25 WELD CLEANING FLUID FOR STAINLESS STEEL
Synonyms: TIG BRUSH WELD CLEANING FLUID

1.2 Uses and uses advised against
Uses: TIG BRUSH WELD CLEANING SOLUTION FOR STAINLESS STEEL

1.3 Details of the supplier of the product
Supplier name: ENSITECH INC
Address: 340 Marshall Avenue, Bldg#104, Aurora, Illinois, 60506, UNITED STATES
Telephone: +1 630 405 6440
Fax: +1 630 423 5979
Email: info@tigbrush.com
Website: www.tigbrush.com

1.4 Emergency telephone numbers
Emergency: +1 352-323-3500

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
CLASSIFIED AS HAZARDOUS UNDER OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200

Physical Hazards
Corrosive to Metals: Category 1

Health Hazards
Skin Corrosion/Irritation: Category 1B

Environmental Hazards
Not classified as an Environmental Hazard

2.2 GHS Label elements
Signal word: DANGER

Pictograms

Hazard statements
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Prevention statements
P234 Keep only in original container.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response statements
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
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 or doctor/physician.
P321 Specific treatment is advised - see first aid instructions.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage statements
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal statements
P501 Dispose of contents/container in accordance with relevant regulations.

2.3 Other hazards
Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

NPF

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOSPHORIC ACID</td>
<td>7664-38-2</td>
<td>231-633-2</td>
<td>30 to 50%</td>
</tr>
<tr>
<td>ADDITIVE(S)</td>
<td>-</td>
<td>-</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>Remainder</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

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, wash with soap and water and see doctor if irritation persists. For chronic exposure remove clothes, have a shower and call a doctor.

Ingestion
For advice, contact the Poison Control Centre at 1-800-222-1222 or a doctor (at once). If swallowed, do not induce vomiting.

First aid facilities
Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns.

4.3 Immediate medical attention and special treatment needed

CORROSIVE POISONING TREATMENT: Immediate treatment preferably in a hospital is mandatory. It is also important to attempt to discover the chemical substances ingested. In treating corrosive poisoning, DO NOT INDUCE VOMITING; DO NOT ATTEMPT GASTRIC LAVAGE; and DO NOT ATTEMPT TO NEUTRALISE THE CORROSIVE SUBSTANCE. Vomiting will increase the severity of damage to the oesophagus as the corrosive substance will again come in contact with it. Attempting gastric lavage may result in perforating either the oesophagus or stomach. Immediately dilute the corrosive substance by having the patient drink milk or water. If the trachea has been damaged tracheostomy may be required. For oesophageal burns begin broad-spectrum antibiotics and corticosteroid therapy. Intravenous fluids will be required if oesophageal or gastric damage prevents ingestion of liquids. Long-range therapy will be directed toward preventing or treating oesophageal scars and strictures.
5. FIRE FIGHTING MEASURES

5.1 Extinguishing media
Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture
Non flammable. May evolve toxic gases (phosphorus oxides) when heated to decomposition. Contact with most metals may evolve flammable hydrogen gas.

5.3 Advice for firefighters
Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. 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
2X
2
X
Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.

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. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions
Prevent product from entering drains and waterways.

6.3 Methods of cleaning up
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.

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. This solution should not be used in a spraying application.

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.

7.3 Specific end uses
Cleaning solution for stainless steel.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>ACGIH TLV</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>3</td>
</tr>
</tbody>
</table>

Biological limits
No biological limit values have been entered for this product.
8.2 Exposure controls

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

PPE

Eye / Face
Wear splash-proof goggles. When using large quantities or where heavy contamination is likely, wear full face protection.

Hands
Wear full-length PVC or full-length rubber or full-length butyl or full-length neoprene or full-length viton (R) or full-length nitrile gloves.

Body
Wear good quality (cotton drill etc) work wear and use common sense and section 4 First aid measures if required. If using large quantities for long periods, or if working at eye level or overhead, coveralls, rubber boots and PVC apron should be used.

Respiratory
Where an inhalation risk exists, wear a Type B (Inorganic gases and vapours) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>CLEAR LIGHT RED LIQUID</td>
</tr>
<tr>
<td>Odour</td>
<td>SWEET ODOUR</td>
</tr>
<tr>
<td>Flammability</td>
<td>NON FLAMMABLE</td>
</tr>
<tr>
<td>Flash point</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Boiling point</td>
<td>145°C</td>
</tr>
<tr>
<td>Melting point</td>
<td>&lt;20°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;1 (Ether = 1)</td>
</tr>
<tr>
<td>pH</td>
<td>1 to 3</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt;1 (Air = 1)</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.36</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>SOLUBLE</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>DATA NOT AVAILABLE</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>NOT RELEVANT</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>DATA NOT AVAILABLE</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>NOT SELF-IGNITING</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>DATA NOT AVAILABLE</td>
</tr>
<tr>
<td>Viscosity</td>
<td>DATA NOT AVAILABLE</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>NOT EXPLOSIVE</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>NON OXIDISING</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>DATA NOT AVAILABLE</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Reactivity
Contact with metals liberates flammable hydrogen gas.

10.2 Chemical stability
Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions
Polymerization is not expected to occur.

10.4 Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials
Incompatible with oxidising agents (e.g. hypochlorites), alkalis (e.g. sodium hydroxide) and metals.
10.6 Hazardous decomposition products
May evolve toxic gases (phosphorus oxides) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOSPHORIC ACID</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td>3846 mg/m³ (rat)</td>
</tr>
</tbody>
</table>

Skin Causes severe burns. Contact may result in irritation, redness, pain, rash, dermatitis and severe burns. Effects may be delayed.

Eye Causes severe burns. Contact may result in irritation, lacrimation, pain, redness and corneal burns with possible permanent eye damage.

Sensitisation Not classified as causing skin or respiratory sensitisation.

Mutagenicity Not classified as a mutagen.

Carcinogenicity Not classified as a carcinogen.

Reproductive Not classified as a reproductive toxin.

STOT - single exposure 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.

STOT - repeated exposure Not classified as causing organ damage from repeated exposure. Adverse effects are generally associated with single exposure.

Aspiration Not classified as causing aspiration.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Phosphoric acid is hazardous to aquatic life at high concentrations. May be harmful to aquatic organisms due to the shift of the pH.

12.2 Persistence and degradability
While acidity may be reduced by natural water minerals, the phosphate may persist indefinitely.

12.3 Bioaccumulative potential
Not expected to bioaccumulate.

12.4 Mobility in soil
When spilled onto soil, it will permeate downward, and may dissolve some of the soil matter, especially carbonate-based materials. Some acid will be neutralised, however significant amounts will remain for transport to groundwater.

12.5 Results of PBT and vPvB assessment
Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects
Avoid contamination of drains and waterways.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal For small amounts (as determined by risk assessment or similar): 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. For larger amounts: Dispose in accordance with local regulations.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION
PRODUCT NAME  TB-25 WELD CLEANING FLUID FOR STAINLESS STEEL

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF DOT, IMDG AND/OR IATA

<table>
<thead>
<tr>
<th></th>
<th>LAND TRANSPORT (DOT)</th>
<th>SEA TRANSPORT (IMDG / IMO)</th>
<th>AIR TRANSPORT (IATA / ICAO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN Number</td>
<td>1805</td>
<td>1805</td>
<td>1805</td>
</tr>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>PHOSPHORIC ACID, SOLUTION</td>
<td>PHOSPHORIC ACID, SOLUTION</td>
<td>PHOSPHORIC ACID, SOLUTION</td>
</tr>
<tr>
<td>14.3 Transport hazard class</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

14.5 Environmental hazards
Not a Marine Pollutant

14.6 Special precautions for user
EMS F-A, S-B

15. REGULATORY INFORMATION

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

US EPCRA and CAA Regulatory Information
The following components are subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act (CAA):

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Sara 302 (TPQ)</th>
<th>Sara 304 (RQ)</th>
<th>CERCLA (RQ)</th>
<th>Sara 313</th>
<th>RCRA Code</th>
<th>CAA (TQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOSPHORIC ACID</td>
<td>7664-38-2</td>
<td></td>
<td></td>
<td>5000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Refer to Section 16 - Summary of Codes

Carcinogenicity
The following carcinogenic status applies:
None of the components of this product are listed on the NTP/IARC/OSHA lists.

Canada - WHMIS
The following components are subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(r) of the Clean Air Act (CAA):

E Corrosive material

Class E

Inventory listings
UNITED STATES: TSCA (US Toxic Substances Control Act)
All components are listed on the TSCA inventory, or are exempt.

16. OTHER INFORMATION

16.1 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.
16.1 Additional information

RESPRITORS: 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 form of product, 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: form of product; 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 report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

16.2 Abbreviations

ACGIH American Conference of Governmental Industrial Hygienists
CAA Clean Air Act
CAS # Chemical Abstract Service number - used to uniquely identify chemical compounds
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CNS Central Nervous System
EC No. EC No - European Community Number
EMS Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
EPCRA Emergency Planning and Community Right-to-Know Act
GHS Globally Harmonized System
IARC International Agency for Research on Cancer
LC50 Lethal Concentration, 50% / Median Lethal Concentration
LD50 Lethal Dose, 50% / Median Lethal Dose
mg/m³ Milligrams per Cubic Metre
NTP U.S. National Toxicology Program
OSHA Occupational Safety and Health Administration
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
RCRA Resource Conservation and Recovery Act
RQ Reportable Quantity measured in pounds (304, CERCLA)
SARA Superfund Amendments and Reauthorization Act
STEL Short-Term Exposure Limit
STOT-RE Specific target organ toxicity (repeated exposure)
STOT-SE Specific target organ toxicity (single exposure)
TLV Threshold Limit Value
TPQ Threshold Planning Quantity measured in pounds (302)
TQ Threshold Quantity measured in pounds (CAA)
TWA Time Weighted Average
16.3 Summary Of Codes

RQ  Reportable Quantity measured in pounds (304, CERCLA)
TQ  Threshold Quantity measured in pounds (CAA)
TPQ Threshold Planning Quantity measured in pounds (302)
^  Reporting threshold has changed since November 1998.
+  Member of PAC category.
#  Member of diisocyanate category.
X  Indicates that this is a second name for a chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.
*  RCRA carbamate waste: statutory one-pound RQ applies until RQs are adjusted.
** This chemical was identified from a Premanufacture Review Notice (PMN) submitted to EPA. The submitter has claimed certain information on the submission to be confidential, including specific chemical identity.
*** Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance. See 50 Federal Register 13456 (April 4, 1985). Values in Section 313 column represent Category Codes for reporting under Section 313.
c  Although not listed by name and CAS number, this chemical is reportable under one or more of the EPCRA section 313 chemical categories.
s  Indicates that this chemical is currently under a administrative stay of the EPCRA section 313 reporting requirements, therefore, no Toxics Release Inventory reports are required until the stay is removed.
!  Member of the dioxin and dioxin-like compounds category.

16.4 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.

16.5 Prepared by

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Web: www.rmtglobal.com


[ End of SDS ]