



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY

Product Name	:- T-Clean Spray S-2
Package	:- 5 Kg container & 35 Kg,
Application	:- Remove welding Scale & Discolour
Product Use	:- Pickling for After Welding & Annealing Operations.
Item brand	:- T-Clean
Manufacturer	:- Techno services
Physical Address	:- 242 G.I.D.C kabilpor,396424 , P.O. Box no.396424
Business Phone	:- 99245-59751 /7622005114
E-mail Address	:- <a href="mailto:tcleanvs@gmail.com">tcleanvs@gmail.com</a>
Web Address	:- <a href="http://www.tclean.in">www.tclean.in</a>
WHMIS Classification	:- Not Regulated

### 2. HAZARDS IDENTIFICATION

R-23 / 24 Risk / 25 & R - 35.

Do not inhale fumes and avoid contacts with eye skin and body.

If skin contact occurs, apply Calcium Gluconate gel 2.5% and 3% Magnesium sulphate.

Replace the lid on the container tightly and store upright in a cool dry area away from Direct sunlight.

Do not store or use below 5°C.

T-Clean has a recommended shelf life, in good storage conditions, of twelve (18) Months.

#### **Environmental effects:**

Pickling Fluid will strongly reduce pH in water. Must be neutralised.

#### **Physical and chemical risks:**

When heated nitrous gases can be developed. Only for treatment of stainless steel, not to be used on other metals.

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### 3. COMPOSITION/INFORMATION ON

Hazardous chemicals	CAS-NO	EEC-NO	Contents	Risk code
Nitric Acid/ HNO	7697-37-2	231-741-2	15%-20%	C- corrosive/ R35
Hydrofluoric acid / HF	7664-39-3	231-634-8	02%-05%	T- toxic/ R23,24,25
Additional content	-----	-----	77%-88%	Non acidic content

### 4. FIRST AID MEASURES

Measures to be taken immediately after the following ways of contact with pickling acids.

#### **Inhalation :-**

Remove to fresh air. Keep victim lying down, quiet and warm. Rinse nose and mouth with water. Might require assistance with breathing. Seek medical care even if only slight inconvenience occurs.

#### **Ingestion :-**

If victim is conscious and alert give milk or water to drink. Thereafter 20 lime tablets dissolved in 2 L of water. Do not induce vomiting. Seek medical care.

#### **Skin contact :-**

Rinse immediately with plenty of water, then treat with 2.5% Calcium Gluconate gel. Rinse immediately with Spray liberally on to the affected area, always using the complete content. Avoid rinsing with water first, as it reduces the effect of the solution.

#### **Eye contact :-**

Treat with If not available, rinse immediately with plenty of water for at least 15 minutes. Thereafter seek immediate medical care (eye specialist).

#### **Information for medical care :-**

Inform the doctor that the injury has been caused by contact with hydrofluoric and nitric acid solutions. Anti-dote treatment after contact with hydrofluoric acid is Calcium Gluconate.



## 5. FIRE FIGHTING MEASURES

### **Danger of fire/explosion :-**

Fluid is non-flammable. In contact with metals hydrogen gas is formed in small quantities, which together with air can cause explosion. Bottles close to fire should be removed or cooled with water.

### **Extinguishing media :-**

Use water spray to cool fire-exposed containers. Substance is non-flammable; use agent most appropriate to extinguish surrounding fire. Released product should be neutralised with caustic soda.

### **Chemical exposure risks caused by the product itself :-**

The Pickling Fluid will cause corrosive damage on skin-contact.

### **Chemical exposure risks caused by released gases/vapours :-**

The Pickling Fluid will emit toxic fumes and nitrous gases when exposed to heat/fire.

### **Protective clothing for firemen :-**

Normal protective clothing.

### **Breathing protection :-**

Gas mask with filter of chlorine type B (grey) and dust filter P2, according to CEN (Central European Norms).

### **How to clean or destroy soiled fire equipment :-**

Thoroughly wash with water.

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions :-**

Avoid direct contact. Wear eye-protection, skin-protection, rubber gloves and breathing apparatuses. Keep working area well ventilated.

### **Environmental precautions (water, air, soil) :-**

Prevent spillage from entering sewage or public waters.



**Methods for cleaning up :-**

Neutralise with T-clean Neutralising Agent or a strong alkaline compound i.e. slaked lime. Embank with sand. Arrange for pick up. Rinse with plenty of water.

**Spillage and decontamination :-**

Spillage should be picked up and disposed of in full compliance with federal, state and local regulations as acid waste.

**7: HANDLING AND STORAGE**

**Handling Technical measures :-**

Working place and methods should be worked out in order to avoid direct contact. Work and storage area should be well ventilated. A closed rinse water system with filtration and reuse of clear water is recommended.

**To prevent fire and explosion :-**

Bottles close to fire should be removed or cooled with water.

**Precautions :-**

Avoid fume generation and accumulation by using in a well-ventilated area. Use in areas having local exhaust and general ventilation. For both eyes and skin, should be available at the premises. Emergency eyewash and safety shower must be available at the working place.

**Storage :-**

**Technical measures :-**

Storage room should be kept separate, cool, dry, well ventilated and closed to unauthorised persons.

Keep containers securely closed when not in use and in an upright position. Store in where temperature remains between 0-30°C at all times.



## 8. EXPOSURE CONTROLS / PERSONAL

### **Caution :-**

This product contains Acidic and corrosive and poisonous.

Wear gas mask with chlorine filter type B (grey) & dust filter P2, Rubber gloves, Face shield, goggles, and rubber boot with acid resistant cloth, avoid spillage or splashes.

Do not use T- Clean Spray near open areas or cutting torches, since a hazardous. Amiable gas can be generated. Keep lid tightly closed when not in use. Store in a cool, dry away from direct sunlight.

Out of reach of children.

If using in poorly ventilated areas, use a respirator equipped with an acid fume type filter. If you have to neutralise the T-Clean residue, this can be done using T-Clean Neutraliser neutralising solution. T-Clean Neutraliser until the colour changes to a pale pink colour.

## 9. PHYSICAL AND CHEMICAL

Boiling Point	:- 60-100 C
Specific Gravity	:- 1.24 - 1.26
Water Solubility	:- Freely soluble in water
PH (as supplied)	:- <1.0 at 20
Appearance & Colour	:- Opaque, white Clear Spray
Density	:- 1.2 - 1.3 g/cm <sup>3</sup> at 20 C
Viscosity at 23 c	:- >10000 maps
Flash point	:- Not Applicable

## 10 . STABILITY AND REACTIVITY

### **Stability :-**

Stable under normal conditions, polymerisation will not occur.

### **Conditions to avoid :-**

Avoid high temperatures, must not be exposed to direct sunshine. When heated nitrous gases will be developed.

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**Material to avoid :-**

Alkaline compounds and water, will give an exothermal reaction, with heat development.

**Hazardous decomposition products :-**

Will emit nitrous gases.

## 11. TOXICOLOGICAL INFORMATION

**Effects on the skin :-**

Gives corrosive damages with yellowish discoloration of the skin, blisters and slow- healing wounds.

**Effects on the eyes :-**

Causes intensive pain and corrosive damages. Risk of irreparable damage to the eyes.

**After ingestion :-**

Gives corrosive damages with burning pain, possibly severe general effect and damage to kidneys and liver.

**Upon inhalation :-**

Inhalation of fumes or mist might cause aches, cough and difficulty in breathing. Risk for oedema on the lungs.

**CMR-effects :-**

Not known

**Additional information :-**

Symptoms will not appear immediately.

## 11. ECOLOGICAL INFORMATION

**Ecotoxicity Hydroflouric acid :-**

Fish (fresh water), 60ppm, lethal (time period not specified)

**Environmental effects :-**



**Mobility :**

The product in its concentrated form will have a poisonous influence on the ground and water. During usage the product will be diluted with water but will still lower the pH of ground-water and may not be discharged into the Clearwater system without pre-treatment.

**Persistence/degradability :-**

Will be protolyzed in water to  $H^+$ ,  $NO^-$ ,  $F^-$ .

**Bioaccumulative potential :-**

The product is not regarded as bioaccumulative.

**Results of PBT assessment :-**

Other adverse effects :- Not known

### 13. DISPOSAL CONSIDERATIONS

**Methods of disposal :-**

Discarded product and related waste is hazardous waste. Alloting of EWC-code should be made on the basis of the source causing the waste. Rinse with plenty of water.

**Additional information :-**

A filtration system for rinse water is recommended. Effluent must be separated and disposed of as acidic waste. Consult with your local authorized and licensed waste disposal agency and ministry of environment for instructions and procedures for approved waste disposal.

### 14. TRANSPORTATION INFORMATION

UN-Classification No :- 2922

Classification Code :- CT1

Proper shipping name :- CORROSIVE LIQUID, TOXIC N.O.S. (Hydrofluoric acid, nitric acid).



Packaging group:-II

IMDG (Sea) :- Class 8 (6.1) EmS F-A, S-B  
ADR/RID (road, rail) :- Class 8 (6.1)  
IATA/DGR (air) :- Class 8 (6.1)  
Tunnel restriction code :- (E)  
Additional information :- The product is to be transported according to dangerous goods regulations.

## 15. REGULATORY INFORMATION

Hazard and safety info. :- According to handling of dangerous goods.  
Chemical Safety Assessment :- Has not been carried out for this product  
Contents :- Nitric acid, hydrofluoric acid.  
Risk phrases :- R 26/27/28: Very toxic by inhalation, in contact with skin and if swallowed. R 35: Causes severe burns.

### Safety phrases

**S 1/2** : Keep locked up and out of the reach of children.  
**S 7/47** : Keep container tightly closed and at temperature not exceeding 30°C.  
**S 23** : Do not breathe fumes.  
**S 26** : In case of contact with eyes rinse immediately with plenty of water and seek medical advice.  
**S 28** : After contact with skin, wash immediately with plenty of water or Avesta First Aid Spray.  
**S 36/37/39**: Wear suitable protective clothing, gloves and eye/face protection.  
**S 45** : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
**S 61** : Avoid release to environment. Refer to special instructions/safety data sheet.





## 16. OTHER

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.

The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.

Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.