

### 1. Identification Of The Material

Product Name	:Rust Remover
Product Origin	:Made In Malaysia
Packed for	:HardwareCity (S) Pte Ltd
Address	:No. 2 Venture Drive, Vision Exchange #08-02/03 (S) 608526
Telephone No.	:62660802
Email	:sales@hardwarecity.com.sg

### 2. Information On Ingredients

Ingredient Name	Oxalic acid dehydrate Cas No. 144-62-7		
	Hydrochloric Acid Cas No.7664-39-3		
	Water.		
HCL	25%	UN Number	1789 & 1790
OX	30%	DG Class	8
Water	45%	Packing Group	11
		Hazchem Code	3R
		Poison Schedule	S6
Recommended Use	Rust Remover		

### 3. Hazards identification

#### Acute Effects

Eyes	Severe eye irritant .Highly corrosive to eyes.
Skin	Highly corrosive to skin
Inhalation	May cause irritation to mouth, nose, and throat.
Ingestion	Cause burn to mouth, throat and stomach. Ingestion result in nausea ,vomiting , abdominal Pain and convulsions. If swallowed can kill.
Chronic Effect	Prolonged skin contact may cause chronic Dermatitis.
Eyes	Irritation with plenty of water for 15 minutes. In all cases of eye contamination it is advisable to seek medical advice
Skin	Wash skin with plenty of water. If irritation persists Seek medical advice.
Inhalation	Not consider a feature of normal use. If irritation Remove to fresh air. If irritation persists seek medical advice.
Ingestion	Rinse mouth with water. Give water to drink. Do Not induce vomiting. Seek medical advice. Treat symptomatically as for strong acid.

## 5. Fire Fighting Measures

Special Hazards	Non- Combustible.
Extinguishing Media	This product is non -flammable vend for fire in the surrounding seethe appropriate extinguishing Method for the area. The product is highly acidic, avoid contact with metals to release hydrogen gas And cause explosion.
Protective Equipment	Self -contained breathing apparatus.

## 6. Accidental Release Measures

Spilling Cleanup	Wash with plenty of water. Contained the spillage And absorb with sand.
Personal Precaution	Turn leak side up to prevent further leakage.
Environmental	Do not discharge into the drain .Contained the Spillage by using bonding. Seek authority for Advice.

## 7. Handling And storage

Handling Requirement	Avoid direct contact with eye and skin. Always follow industrial safety practices.
Storage Condition	Store in cool and dry place and keep container Closed.
Suitable Packaging others	Must only keep in original container. Refer to State Regulation for storage and Transportation requirements.

## 8. Exposure Controls

### Work place Exposure Limits

Oxalic acid dehydrate	OSHA PEL :5ppm (TWA) TLV:2 ppm (TWA)
Hydrofluoric acid	OSHA PEL: 3ppm (TWA) TLV :0.5ppm(TWA)
Engineering Measures	Must have well ventilated area to remove HCL & HF vapor.
Respiratory protection	Self -contained breathing apparatus must be Available.
Eye protection	Wear safety glasses , face shield , Viton rubber Glove and impervious apparel. Avoid direct skin and eyes contact.

## 9. Physical And Chemical properties

Appearance	clear Liquid
Color	Colorless
Odor	Fragrance smell
PH	3 to 4
Boiling Point	NA
Flash Point	NA
Specific Gravity	1.02
Vapor Pressure	NA
Solubility in water	Soluble

## 10. Stability And Reactivity

Stability	Stable at room temperature
Condition to Avoid	Do not mix with other chemical.
Hazardous Decomposition of Product	Heated may liberate hydrogen chloride and Hydrogen fluoride gases.

## 11. Toxicological information

Toxicity Data	As Oxalic acid dehydrate : Oral rabbit LD50 :900mg / kg
	As Hydrofluoric :IHL HMN LCLD : 50ppm/30min