



Material Safety Data Sheet

Product : ZAPRUST

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Manufacturer :
BioShields - A Division of Tulip Diagnostics Pvt. Ltd.
Plot No. M – 46, Phase III B,
Verna Industrial Estate,
Verna, Goa, 403 722,
INDIA.
Product name : ZAPRUST
Synonyms : High Efficiency Rust Remover

2. COMPOSITION / INFORMATION ON INGREDIENTS

The ingredients at their given percentages in this product are not considered hazardous to your health.

Components	CAS Number	% (w/v or v/v)
Phosphoric Acid	7664-38-2	50 – 60 %

3. HAZARDS IDENTIFICATION

Emergency overview : None
Properties affecting health : None
Principle routes of exposure :
Oral : Can irritate the tissues of mouth and may damage respiratory and digestive tract.
Eye contact : Hazardous in case of eye contact (irritant and corrosive). Can cause inflammation of the eye characterized by watering and itching.
Skin contact : Very hazardous in case of skin contact (irritant, corrosive, permeator) and may produce burns.
Ingestion : Ingestion of this material may cause oral thrush, severe pain, nausea, vomiting, diarrhea, choking and shortness of breath.
Inhalation : Hazardous in case of inhalation (lung sensitizer).
Physico – chemical properties : This product may cause eye, skin or respiratory irritation.
Hazard information
Sensitization : May cause sensitization by inhalation and skin contact.
Medical conditions
Aggravated by exposure : Inhalation of vapor may cause coughing and irritation of respiratory tract leading to frequent attack of bronchial infection. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.

4. FIRST AID MEASURES

Eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek immediate medical attention.
In case of accident or if you feel unwell, seek medical advice immediately (show the label wherever possible).
Ingestion : Rinse the mouth thoroughly with water. Do not induce vomiting. Call a physician or Poison Control Center immediately. Do not ingest emetic.

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Inhalation	: Move to fresh air immediately. If experiencing difficulty in breathing, seek medical attention.
Skin contact	: Rinse with water. Remove contaminated clothing and wash immediately with plenty of water. Consult a physician if skin redness or irritation persists.
Protection of first-aiders	: No information available.
Notes to physician	: Probable damage to the mucosa from oral exposure may contraindicate the use of gastric lavage.

5. FIRE – FIGHTING MEASURES

Flash point (°F)	: Unknown on product.
Flash point (°C)	: Unknown on product.
Autoignition temperature	: Unknown on product.
Flammable limits in air – lower (%)	: Unknown on product.
Fire fighting information	:
Suitable extinguishing media	: Water fog, Water, Foam, Carbon dioxide.
Extinguishing media which must not be used for safety reasons	: None.
Specific methods	: None.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for fire fighting if necessary.
Hazardous combustion products	: Oxides of Phosphorus.
Explosivity	: None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Wear eye and skin protection while handling material for clean-up. (Wear nitrile or latex gloves) (Gloves length - 18 inches). Responders should wear gloves, goggles and suitable body protection. Where there is a risk of product contact with shoes, chemical resistant shoe coverings are recommended.
Environmental precautions	: Do not empty into drains or the aquatic environment.
Methods for cleaning up	: Absorb the spill by placing suitable absorbent material (e.g. sand, diatomaceous earth, acid or universal binding agent) around the edges of the spill and work inward. Carefully scoop up into waste container for disposal. Flush with plenty of water.

7. HANDLING AND STORAGE

Handling :	
Technical measures/precautions	: No special technical protective measures required.
Safe handling advice	: Avoid contact with skin and eyes. Eye and skin protection recommended. Wear chemical resistant gloves.
Storage :	
Technical measures/storage conditions	: No special technical protective measures are necessary.
Incompatible products	: None

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	: No special measures are necessary.
Eye protection	: Suitable eye protection - Framed glasses. Tightly sealed safety glasses (EN 166).

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Where there is risk of product splashing into eyes, an independent face shield must be worn over the safety glasses.

Hand protection : Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications. When handling chemical substances, chemical protective gloves must be worn.

Suitable material:

Butyl rubber, Nitrile rubber, Polychloroprenes, Chloroprene rubber, Natural rubber Natural latex & Polyvinyl chloride.

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Skin and body protection : Wear suitable protective clothing. Wear chemical resistant lab coat.

Respiratory protection : Wear suitable respiratory protection, if required.

Other/general protection : None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Clear liquid.
Physical state	: Liquid.
Colour	: Colourless.
pH	: 1.65 – 1.85 (1 % v/v) & 0.6 – 0.8 (10 % v/v).
Odour	: Odourless.
Water Miscibility	: Miscible (Clear solution)

10. STABILITY AND REACTIVITY

Chemical stability	: Stable
Hazard polymerization	: Hazardous polymerization does not occur.
Hazardous decomposition products	: Oxides of phosphorus.
Materials to avoid	: Bases, Fluorine, Strong oxidizing and reducing agent, Sulfur trioxide, Phosphorus pentoxide.
Conditions to avoid	: Store protected from moisture and heat.

11. TOXICOLOGICAL INFORMATION

Local effects

Oral	: Acute toxicity.
Eye irritation	: Severe irritant and corrosive to the eye when tested in animals.
Skin irritation	: Causes severe skin burns.
Inhalation	: Cause corrosive burns – irreversible damage to the respiratory tract.

Chronic toxicity

Oral	: Cause irritation of mouth and damages respiratory and digestive tract.
Inhalation	: Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.
Dermal	: Repeated or prolonged exposure will cause dermatitis.

Specific effects

Corrosive effects	: Highly Corrosive.
Target organ effects	: None.



12. ECOLOGICAL INFORMATION

Ecotoxicity

- Ecotoxicity effects** : This product has no known eco – toxicological effects.
- Aquatic toxicity effects** : The product is an acid. The product needs to be neutralized with suitable neutralizing agents before draining to waste water treatment plants.
- Mobility** : Unknown on product.
- Persistence / degradability** : The product is biodegradable.
- Bioaccumulation** : Unknown on product.
- Degradation** : Unknown on product.

13. DISPOSAL CONSIDERATIONS

- Waste from residues/unused products**: This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.
- Contaminated packaging** : Completely emptied packings can be re-cycled.
Waste disposal according to official state regulations
- Methods for cleaning up** : Clean – up methods
Absorb the spill by placing suitable absorbent material (e.g sand, diatomaceous earth, acid or universal binding agent) around the edges of the spill and work inward. Carefully scoop up into waste container for disposal.
Flush with plenty of water.

14. TRANSPORT INFORMATION

- DOT** : Class 8 – Corrosive metal
- IATA/ICAO** : UN number - UN1805
UN proper shipping name - PHOSPHORIC ACID SOLUTION
Packing Group - III
Passenger Certification - 5.00 L
Cargo aircraft / rail - 60.00 L

15. REGULATORY INFORMATION

- CAS No.** : Not applicable.
- Labeling** : For External Use Only.
- Safety Phrases** : Avoid contact with the skin and mucous membrane. In case of contact, wash immediately with plenty of water and seek medical attention.

16. OTHER INFORMATION

- Additional advice** : None
- Literary Reference** : None

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