SAFETY DATA SHEET

SECTION 1: Identification

1.0 **GHS Product Identifier**: PICS Stain
1.1 **Recommended Use of the Chemical and Restrictions on Use**: Staining concrete

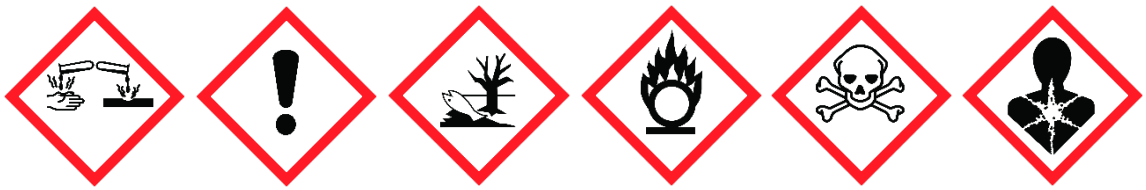
1.2 **Details of the supplier of the safety data sheet**

- Name of Supplier: PICS Ltd
- Address of Supplier: Unit 2 & 4
  Red Shute Hill Ind Estate
  Hermitage
  Newbury
  Berkshire
  RG18 9QL
  UK
- Telephone: +44 (0) 1635 202224
- Email: Info@picsuk.com

1.3 **Emergency telephone number**: +44 (0) 1635 202224
(office hours only Mon– Fri 08:00 – 17:30)

SECTION 2: Hazards identification

2.1 Classification of the Substance or Mixture: Category 1C Corrosive Liquid
2.2 GHS Label Elements:
Bronze, Burnt Orange, Mahogany & Seal Brown:



Warning: Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May be corrosive to metals. Very toxic to aquatic life
Danger: May cause severe skin burns and eye damage

Aqua Blue, Deep Green & Fern:

Warning: Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May be corrosive to metals. Very toxic to aquatic life.
Danger: May cause severe skin burns and eye damage

Chestnut & Terracotta:

Warning: Potentially fatal if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. May be corrosive to metals.

Danger: May cause severe skin burns and eye damage

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Aqua Blue	Hydrochloric Acid	<10%	7647.01.1
	Cupric chloride	<30%	1344.67.8
Bronze	Hydrochloric Acid	<10%	7647.01.1
	Ferrous Chloride Solutions (UN1760)	<80%	
	Sodium Dichromate	<2%	10588.01.9
Burnt Orange	Sodium Dichromate	<15%	10588.01.9
	Ferric Chloride Solution	<90%	
Chestnut	Hydrochloric Acid	<10%	7647.01.1
	Ferric Chloride (UN2582)	<40%	
Deep Green	Hydrochloric Acid	<10%	7647.01.1
	Sodium Dichromate	<10%	10588.01.9
	Cupric chloride	<30%	1344.67.8
Fern	Hydrochloric Acid	<10%	7647.01.1
	Sodium Dichromate	<5%	10588.01.9
	Cupric chloride	<30%	1344.67.8
Mahogany	Hydrochloric Acid	<10%	7647.01.1
	Sodium Dichromate	<10%	10588.01.9
	Magnese Chloride	<25%	13446.34.9
Seal Brown	Hydrochloric Acid	<15%	7647.01.1
	Ferrous Chloride Solutions (UN1760)	<25%	
	Sodium Dichromate	<5%	10588.01.9
	Magnese Chloride	<12%	13446.34.9
Terracotta	Hydrochloric Acid	<10%	7647.01.1
	Ferrous Chloride Solutions (UN1760)	<10%	

4.0 FIRST-AID MEASURES
4.1 Description of Necessary First-Aid Measures:

a. Inhalation: Take precautions to ensure your own safety before attempting rescue. Wear appropriate personal protective equipment and use the 'buddy' system. Remove the victim to fresh air. If breathing has stopped, begin artificial respiration, or if the heart has stopped, begin cardiopulmonary resuscitation (CPR) immediately. Oxygen should be administered by a trained person. Ensure victim is completely at rest - allow no physical exertion. Symptoms may be delayed for up to 48 hours. Immediately transport victim to an emergency medical facility.

b. Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or is convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 300 mL of water. If milk is available, administer AFTER the water. If vomiting occurs naturally, have the victim lean forward to reduce risk of aspiration. Repeat administration of water. Immediately transport to emergency medical facility.

c. Skin Contact: Avoid direct contact. Wear impervious protective gloves if necessary. Immediately flush contaminated areas with lukewarm, gently running water for at least 20 minutes. Under running water, remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Do not interrupt flushing - have emergency vehicle wait if necessary. Transport victim to emergency medical facility. Decontaminate clothing, shoes and leather goods before reuse or discarding.

d. Eye Contact: Immediately flush contaminated eye(s) with lukewarm, gently running water for at least 30 minutes while holding the eyelid(s) open. Take care not to rinse contaminated water into a non- affected eye. Neutral saline solution may be used for flushing if available. Do not interrupt flushing - keep emergency vehicle waiting if necessary. If irritation persists, repeat flushing. Transport victim to emergency medical facility.

e. General Comments: Provide general supportive measures (comfort, warmth, rest). Seek medical attention for all exposures except minor instances of inhalation of skin contact. First -aid procedures should be reviewed by appropriate personnel familiar with hydrochloric acid and its conditions of use in the workplace.

4.2 **Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary:**
Contact a National Poison Information Centre (NPIS) for additional treatment information.

5.0 FIRE-FIGHTING MEASURES
5.1 Suitable Extinguishing Media: Dry chemical, alcohol-resistant foam, or CO2
5.2 **Flash Point (TCC):** N/A
5.3 **Flammable Limits (% Volume in Air for Solvents): LEL:** Not Determined **UEL**: Not Determined
5.4 **Special Protective Actions for Fire-Fighters:**
Reactions with metals and water can liberate hydrogen gas and may form explosive mixture in the air. At high temperatures, toxic corrosive fumes of anhydrous gas may be emitted. Because fire may produce toxic thermal decomposition products, we a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

6.0 ACCIDENTAL RELEASE MEASURES
6.1 **Personal Precautions, Protective Equipment and Emergency Procedures:**
Evacuate unnecessary personnel from spill area and keep unprotected persons upwind. Wear appropriate personal protective equipment. Ventilate area. Vapor is heavier than air and will collect in low areas. Do not touch spilled hydrochloric acid.
6.2 **Methods and Materials for Containment and Clean Up:**
Spills may be absorbed using cement powder or fly ash and shoveled into containers. Neutralise spills with lime, sodium bicarbonate or crushed limestone and prevent runoff. Notify proper authorities if runoff should occur.
6.3 **Environmental Precautions:**
Implement spill control plan. Stop or reduce leak if safe to do so. Prevent from entering sewers, waterways, or confined spaces. Use inert materials such as earth or sand to form a dike.
6.4 **Remedial Measures:**
Restrict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Use all appropriate personal protective equipment. For small spills: absorb with neutralising materials such as soda ash or lime and collect in sealed containers. Flush area with water. For large spills. Contain and collect spilled material if possible.

7.0 HANDLING AND STORAGE
7.1 **Precautions and Safe Handling:**
Prevent release of vapour or mist into workplace air. Ensure adequate ventilation. Have emergency equipment readily available. When diluting, slowly add acid to the water to avoid boiling or splattering. Keep containers closed when not in use. Wash face and hands thoroughly after handling and before eating, drinking or using tobacco products.
7.2 **Conditions for Safe Storage, Including Any Incompatibilities:**
Store in cool, dry, well-ventilated area, out of direct sunlight and away from heat sources. Store away from incompatible materials such as oxidising materials, reducing materials and strong bases. Keep storage area separate from populated work areas.
7.3 **Special Precautions: Avoid breathing mist. Do not freeze.**
7.4 **Waste Disposal Method**: Dispose of material in accordance with local guidelines.

8.0 PROTECTION INFORMATION
8.1 **Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow European Standards regulations (EN141-2000) and if necessary, wear a European Standards approved respirator. Select respirator on its suitability to provide adequate worker protection for given working conditions, level of airborne contaminations, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.
8.2 **Ventilation**: Provide general or local exhaust ventilation systems to maintain airborne concentrations below European Standards. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
8.3 **Protective Clothing/Equipment**: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.
8.4 **Eye Protection**: Wear protective eyeglasses or chemical safety goggles, per European Standards eye and face protection regulations (EN ISO 16321-1:2022). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.
8.5 **Safety Stations**: Make emergency eyewash stations, safety/quick drench showers, and washing facilities available in work area.
8.6 **Contaminated Equipment**: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
8.7 **Comments**: Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

9.0 PHYSICAL AND CHEMICAL PROPERTIES
9.1 **Appearance**: Coloured Liquid
9.2 **Odor**: Acrid Odour
9.3 **Odor Threshold**: Not Determined
9.4 **pH: <1**
9.5 **Melting Point/Freezing Point**: Melting Point=Not Determined; Freezing Point=Zero Degrees Celsius
9.6 **Boiling Point**: 108 Degrees Celsius
9.7 **Flash Point**: Not Applicable
9.8 **Evaporation Rate**: Not Determined
9.9 **Flammability (Solid, Gas)**: Non-flammable under normal conditions
9.10 **Upper/Lower Flammability or Explosive Limits**: Not applicable
9.11 **Vapor Pressure**: Not Determined
9.12 **Vapor Density**: Not Determined
9.13 **Relative Density (Specific Gravity)**: 1.22 (Water = 1)
9.14 **Solubility**: Completely Soluble in Water
9.15 **Partition Coefficient**: Not Determined
9.16 **Auto Ignition Temperature**: Not Applicable
9.17 **Decomposition Temperature**: Not Determined
9.18 **Viscosity**: 1.004 Centistokes (20 Degrees Celsius)

10.0 STABILITY AND REACTIVITY
10.1 **Reactivity**: Acid stain is stable at room temperature in closed containers under normal storage and handling conditions.
10.2 **Chemical Stability**: Stable
10.3 **Conditions to Avoid**: Heat, open flame, reactive metals and strong oxidisers

10.4 **Incompatible Materials**: Contact with common metals, including aluminium or magnesium, may produce hydrogen which may form explosive mixtures in the air.
10.5 **Hazardous Decomposition Products**: Thermal oxidative decomposition of acid stain can product toxic and hazardous gases including fumes of hydrogen chloride and oxides of copper.
10.6 **Hazardous Polymerization**: Hazardous polymerization cannot occur under normal temperatures and pressures.

11.0 TOXICOLOGICAL INFORMATION

11.1 **Likely Routes of Exposure**: Inhalation, ingestion, eyes and skin
11.2 **Symptoms Related to the Physical, Chemical and Toxicological Characteristics**: N/A
11.3 **Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure**:
The severity of damage depends on the duration of the exposure. In general, solutions and mists with a pH of 3 or less are a significant health concern. Contact with alkali liquids will generate heat. Contact with most metals will generate flammable hydrogen gas.
11.3.1 **Effects of Short-Term (Acute) Exposure**:

a. **Inhalation**: Vapour or mist in the 50 to 100 ppm range can cause severe nasal irritation, sore throat, choking, coughing and difficulty breathing. Prolonged exposures can cause burns and ulcers to the nose and throat. Severe exposures for a few minutes at 1000 to 2000 ppm can cause a life-threatening accumulation of fluid in the lungs called pulmonary edema. Symptoms of pulmonary edema such as shortness of breath may be delayed for 48 hours after exposure.
b. **Skin Contact**: Contact with liquid can cause irrigation and burns. Vapour or mist may cause redness, irritation and burns if contact is prolonged.
c. **Eye Contact**: Low concentrations of vapour or mist (10 - 35 ppm) can be immediately irritating and result in redness. Concentrated vapour, mist or splashed liquid can cause severe irritation, burns and permanent blindness.
d. **Ingestion**: Liquid can cause corrosive burns to mouth, throat, esophagus and stomach. Symptoms may include difficulty in swallowing, intense thirst, nausea, vomiting, diarrhea, and in severe cases, collapse and death. Small amounts of acid which enter the lungs during ingestion or vomiting (aspiration) can cause serious lung injury and death.

11.3.2 **Effects of Long-Term (Chronic) Exposure**:
Repeated and prolonged exposure to low concentrations of mist or vapour can cause discoloration and damage to tooth enamel, bleeding of the nose and gums, gastrointestinal symptoms, and chronic bronchitis and gastritis. Repeated exposure to low concentrations of liquid, mist or vapour can cause redness, swelling, sensitisation, and pain (dermatitis). Metallic taste and garlic breath are signs of selenium absorption. No evidence of carcinogenicity in human studies. This product does not accumulate in the body.

11.3.3 **Medical Conditions Aggravated By Exposure**: Pre-existing respiratory and skin disorders.
11.4 **Acute Toxicity Lethal Doses**:

Ingredient Name	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
Sodium Dichromate	No Data Available	No Data Available	No Data Available
Cupric Chloride	No Data Available	No Data Available	No Data Available
Manganese Chloride	Rat – 1454 mg/kg	No Data Available	No Data Available
Ferric Chloride	Rat – 900 mg/kg	No Data Available	No Data Available
Hydrochloric Acid	Rabbit – 900 mg/kg	Rabbit – >5010 mg/kg	Rat – 3124 ppm (1 hour)
Ferrous Chloride	Rabbit – 890 mg/kg	Rat – 498 mg/kg	No Data Available

12.0 ECOLOGICAL INFORMATION

12.1 **Ecotoxicity**: Moderate toxicity to aquatic life

Ingredient Name	Acute Toxicity to Fish	Acute Toxicity to Aquatic Invertebrates
Sodium Dichromate	LC50 (96 hr.) 31 mg/L – Fathead Minnow	No Data Available
Cupric Chloride	No Data Available	No Data Available
Manganese Chloride	No Data Available	No Data Available
Ferric Chloride	LC50 (96 hr.) 6mg/L – Striped Bass	EC50 (96 hr.) 15mg/L – Daphnia Magna
Hydrochloric Acid	LC50 (96 hr.) 282 mg/L – Mosquito Fish	EC50 (48 hr.) 100-300ppm – Shrimp (Salt Water)
Ferrous Chloride	No Data Available	No Data Available

12.2 **Persistence and Degradability**: No data available
12.3 **Bioaccumulative Potential**: Potential for bioaccumulation of metals
12.4 **Mobility in Soil**: Highly mobile in wet soil
12.5 **Other Adverse Effects**: None

13.0 DISPOSAL CONSIDERATIONS

13.1 **Disposal Methods**: Dispose of in accordance with local regulations.

14.0 TRANSPORT INFORMATION

14.1 **UN Number**: UN 3288
14.2 **UN Proper Shipping Name**: Corrosive Liquid, Acidic, Inorganic, N.O.S., (Contains Hydrochloric Acid)
14.3 **Transportation Hazard Class**: 8
14.4 **Packing Group, if Applicable**: II
14.5 **Marine Pollutant**: Aqua Blue, Bronze, Burnt Orange, Deep Green, Fern, Mahogany & Seal Brown

15.0 REGULATORY INFORMATION

Specific regulations: This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XIV – LIST OF SUBSTANCES SUBJECT TO AUTHORISATION

Chemical Safety Assessment: A chemical safety assessment has been carried out for the substance or the mixture by the supplier

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

Component	CAS No.
Hydrochloric Acid	7647-01-0
Manganese Chloride	13446-34-9
Sodium Dichromate	7798-12-0
Ferric Chloride	7705-08-0
Cupric Chloride	7447-39-4
Ferrous Chloride	7758-94-3

16.0 ADDITIONAL INFORMATION

Created 21 May 2025

Disclaimer: This information is believed to be accurate and represents the most current information available to us at this time. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users of this material should determine, by independent investigation, the suitability of the information provided for their exact uses. In no event shall PICS Ltd be liable for any claims, losses, or damages or for lost profits or any special, direct, indirect, incidental, consequential or exemplary damages, howsoever arising, even if PICS Ltd has been advised of the possibility of such damages.

Details of the supplier of the safety data sheet

- Address of Supplier: Unit 2 & 4
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  Hermitage
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