MATERIAL SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: Testing Solution No. 8

Sulphuric Acid 30% Phosphoric Acid 20% Mixture

- TS08
- 125716144

Brand: Solmedia Ltd

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Test reagent

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Solmedia Ltd.
- Address of Supplier: Unit 2, Vernon Drive
  Battlefield Enterprise Park
  Shrewsbury
  SY1 3TF
  UK
- Telephone: 0844 80 80 900
- Email: labsupplies@solmedialtd.com

1.4 Emergency telephone number

Emergency Phone # +44 (0)844 80 80 900

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification under CLP: Skin Corr. 1A: H314; Met. Corr. 1: H290

Most important adverse effects: May be corrosive to metals. Causes severe skin burns and eye damage. Harmful if swallowed.

2.2 Label elements

Hazard pictograms:

Signal word: Danger

Hazard Statements:

H290 may be corrosive to metals.

H314 causes severe skin burns and eye damage

H302 harmful if swallowed

Precautionary statements: P280 wear protective gloves/protective clothing/eye protection/face protection. P305+351+338: 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

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative or toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

PBT: This product is not identified as a PBT/vPvB substance.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical identity: SULPHURIC ACID

CAS number: 7664-93-9

EINECS number: 231-639-5

Contains: Molecular Formula: H2O4S

Molecular Weight: 98.08 g/mol.

Chemical identity: Phosphoric Acid

CAS number: 7664-38-2

EINECS number: 231-633-2

SECTION 4: First aid measures

4.1 Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor. Do not induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: Harmful if absorbed through skin Causes severe burns blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: There may be severe pain. The eyes may water profusely. The vision may become blurred. May cause chemical conjunctivitis and corneal damage.

Ingestion: Harmful if swallowed. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach. There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Corrosive burns may appear around the lips. There may be vomiting and diarrhoea. Blood may be vomited. Nausea and stomach pain may occur.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing. May cause drowsiness and dizziness.

Delayed / immediate effects: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed. To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Show this safety data sheet to the doctor in attendance.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of sulphur oxides and phosphorus oxides and/or phosphine Oxides of phosphorous.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Wear protective clothing to prevent contact with skin and eyes. Use water spray to cool unopened containers.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to section 8 of SDS for personal protection details

6.2 Environmental precautions

Do not discharge into drains or rivers.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4 Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Non-combustible, corrosive hazardous material.

7.3 Specific end use(s)

No other specific uses stipulated other than the uses mentioned in section 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

State	8 Hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.05mg/m³	-	-	-

8.1 DNEL/PNEC Values

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	0.1mg/m³	Workers	Acute local
DNEL	Inhalation	0.05mg/m³	Workers	Long-term local
PNEC	Marine Water	0.00025mg/l	-	-
PNEC	Fresh Water	0.0025mg/l	-	-
PNEC	Marine sediments	0.002mg/kg	-	-
PNEC	Fresh Water Sediments	0.002mg/kg	-	-
PNEC	Onsite sewage treatment plant	8.8mg/l	-	-

8.2 Exposure controls

Engineering measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after breaks and at the end of workday.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with application laws and good laboratory practises. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact. Material: Fluorinated rubber. Min Layer Thickness: 0.7mm. Break Through Time: 8hrs. For splash contact use Nitrile rubber gloves with a minimum thickness layer of 0.2mm, and a break through time of 30 mins. If used in solution, or mixed with substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

Eye protection: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental: Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Pungent

Solubility in water: Soluble

Boiling point/range: 290

Melting point/range: 3

Vapour pressure: 1.33hPa at 145.8C

Relative density: 1.75 - 1.80

pH: 1.2 at 5g/l

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Materials to avoid: Bases. Halides, Organic materials, Carbides, fulminates, Nitrates, picrates, Cyanides, Chlorates, alkali halides, Zinc salts, permanganates, e.g. potassium permanganate, Hydrogen peroxide, Azides, Perchlorates., Nitromethane, phosphorous Reacts violently with:, cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous(III) oxide, Powdered metals.

10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicity Values:

Route	Species	Test	Value	Units
Oral	RAT	LD50	2,140	mg/kg
Inhalation	RAT	2H LC50	510	mg/m³

Relevant hazards for substance:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data

Skin contact: Harmful if absorbed through skin Causes severe burns Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: There may be severe pain. The eyes may water profusely. The vision may become blurred. May cause chemical conjunctivitis and corneal damage.

Ingestion: Harmful if swallowed. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Corrosive burns may appear around the lips. There may be vomiting and diarrhoea. Blood may be vomited. Nausea and stomach pain may occur.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing. May cause drowsiness and dizziness.

Delayed / immediate effects: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed. To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicity values:

Species	Test	Value	Units
Gambusia affinis (Mosquito Fish)	96H LC50	42	mg/l
Daphnia magna (Water flea)	24H EC50	29	mg/l

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Soluble in water.

12.5 Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance

12.6 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company. Offer surplus and non-recyclable solutions to a licensed disposal company.

Disposal of packaging: Dispose of as unused product. NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

SECTION 14: Transport information

14.1 UN number

UN1830/UN1805

14.2 UN proper shipping name

SULPHURIC ACID/PHOSPORIC ACID

14.3 Transport hazard class(es)

Class 8

14.4 Packaging group

Group 2

14.5 Environmental hazards

No

14.6 Special precautions for user

Tunnel code: E

Transport category: 2

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 as amended by Regulation (EU) 2015/830.

Water hazard class (WGK): strongly hazardous to water (WGK 3)

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

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SECTION 16: Other information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Solmedia Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.