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 General information

IF exposed: Immediately call a POISON CENTRE/doctor/…. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

After Inhalation

Immediately call a POISON CENTRE/doctor/…. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. Contact doctor with Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

Immediately call a POISON CENTRE/doctor/…. Do NOT induce vomiting. Rinse mouth thoroughly with water. Give nothing to eat or drink.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.

Effects : Extremely corrosive and destructive to tissue. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. See Section 11 for more detailed information on health effects and symptoms**.**

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.5 Information to physician

No data available

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

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protective equipment

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Skin 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 applicable laws and good laboratory practices.

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: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0.11 mm
Break through time: 480 min

Wash and dry hands.

Body Protection

Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK

(EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection:

Goggles recommended during refilling: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Additional Information

Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Control of environmental exposure

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

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

UN2796

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.