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. 73

Ammonia/Ammonium Chloride Solution

Product Number:

- TS73
- 129407150
- 129407144

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

H314 Skin corrosion, category 1B

H335 Specific target organ toxicity (single exposure), category 3, vascular

H400 Hazardous to the aquatic environment, acute, category 1

2.2 Label elements



Signal word: Danger

Hazard Statements

H314 Causes sever skin burns and eye damage

H335 May cause respiratory irritation

H400 Very toxic to aquatic life

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection

P273 Avoid release to the environment

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309+P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container to …

2.3 Other hazards

SVCH No

SECTION 3: Composition/information on ingredients

3.1 Substances Not applicable

Hazardous Mixtures

Substance Name	**Concentration**	**Product Identifier**	**Hazard classes and hazard categories**
Ammonia in aqueous solution	10-25%	CAS No. 1336-21-6 EC No. 215-647-6 REACH No Not yet communicated Down the supply chain	Skin corrosion, category 1B –H314 Specific target organ toxicity (single exposure category 3 vascular –H335 Hazardous to the aquatic environment, acute category 1 – H400
Ammonium Chloride	5-10%	CAS No.: 12125-02-9 EC No.: 235-186-4 REACH No.: 01-2119487950-27XXXX	Acute toxicity, category 4, oral - H302 Eye irritation, category 2 - H319

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. 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

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

Extinguishing media which must not be used for safety reasons

No restriction

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Pyroloysis products, toxic

5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives. In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

In case of major fire and large quantities: Remove persons to safety. Use personal protection equipment. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.

6.4 Additional information

Clear spills immediately.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

All work processes must always be designed so that the following is as low as possible: Inhalation skin contact Eye contact. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature: 15-25 °C

Storage class: 8B

Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredient	Regulatory Information	Country	Limited type (country of origin)	Limited Value
Ammonium Chloride	GESTIS	UK	LTV	10 mg/m³
Ammonium Chloride	GESTIS	UK	STV	20 mg/m³

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).

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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.

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).

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

No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance

Physical state: liquid Colour: colourless

(b) Odour: no data available

(c) Odour threshold: no data available

Safety relevant basic data

(d) No data available

(e) Melting point/freezing point: No data available

(f) Initial boiling point and boiling range: No data available

(g) Flash point: no data available

(h) Evaporation rate: no data available

(i) Flammability (solid, gas): not applicable

(j) Upper/lower flammability or explosive limits

Lower explosion limit: no data available Upper explosion limit: no data available

(k) Vapour pressure: no data available

(l) Vapour density: no data available

(m) Relative density: No data available

(n) Solubility(ies) at 20 °C: no data available Soluble (g/L) in: no data available

(o) Partition coefficient: n-octanol/water: no data available

(p) Auto-ignition temperature: no data available

(q) Decomposition temperature: no data available

(r) Viscosity Kinematic viscosity: no data available Dynamic viscosity: no data available

(s) Explosive properties: not applicable

(t) Oxidising properties: not applicable

9.2 Other safety information

Bulk density: no data available

Refraction index: no data available

Dissociation constant: no data available

Surface tension: no data available

Henry constant: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

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

Acute effects

Acute oral toxicity: no data available

Acute dermal toxicity: no data available

Acute inhalation toxicity: no data available

Irritant and corrosive effects Primary irritation to the skin: Causes severe skin burns and eye damage.

Irritation to eyes: Causes serious eye damage.

Irritation to respiratory tract: May cause respiratory irritation.

Respiratory or skin sensitisation In case of skin contact: not sensitising After inhalation: not sensitising

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Carcinogenicity No indication of human carcinogenicity.

Germ cell mutagenicity No indications of human germ cell mutagenicity exist.

Reproductive toxicity No indications of human reproductive toxicity exist.

Aspiration hazard not applicable

Other adverse effects no data available

Additional information no data available

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) fish toxicity: no data available

Chronic (long-term) fish toxicity: no data available

Acute (short-term) daphnia toxicity: no data available

Chronic (long-term) daphnia toxicity: no data available

Acute (short-term) algae toxicity: no data available

Chronic (long-term) algae toxicity: no data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: no data available

Appropriate disposal / Package Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

Additional information no data available

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN-No.: 3266

14.2 Proper Shipping Name: Corrosive Liquid, Basic, Inorganic, N.O.S.

14.3 Class(es): 8 Classification code: C5 Hazard label(s): 8

14.4 Packing group: II

14.5 Environmental hazards: No

14.6 Special precautions for user: Hazard identification number (Kemler No.): 80 tunnel restriction code: E (Passage forbidden through tunnels of category E.)

Sea transport (IMDG)

14.1 UN-No.: 3266

14.2 Proper Shipping Name: Corrosive Liquid, Basic, Inorganic, N.O.S.

14.3 Class(es): 8 Classification code: Hazard label(s): 8

14.4 Packing group: II

14.5 Environmental hazards: No MARINE POLLUTANT: No

14.6 Special precautions for user: Segregation group: - EmS-No. F-A S-B

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not relevant

Air transport (ICAO-TI / IATA-DGR)

14.1 UN-No.: 2672

14.2 Proper Shipping Name: Corrosive Liquid, Basic, Inorganic, N.O.S.

14.3 Class(es): 8 Classification code: - Hazard label(s): 8

14.4 Packing group: II

14.5 Special precautions for user

Not relevant

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): hazardous to water (WGK 2)

EU: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)

EU: Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

EU: Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

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.