Revision: 18 December 2020

SAFETY DATA SHEET

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

1.1 Product identifier

- **UFI No:** **RT10-H04V-E00T-9GY5**
- Product Name: pH Minus
- Product Part Number: 021
- Chemical Name: Sodium hydrogensulphate
- Synonyms: Sodium bisulphate; dry acid
- CAS No.: 7681-38-1
- EC No.: 231-665-7
- Index No.: 016-046-00-X
- REACH Registration Number: 01-2119552465-36-XXXX

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

- Use of the substance/mixture: Pool / spa treatment
- Use advised against: No information available

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Isell Ltd
- Address of Supplier:

  Unit 5 Penrose House
  Treleigh Ind Est
  Redruth
  TR16 4DE
- Telephone: 01326 371482
- Email: info@pure-spa.co.uk

1.4 Emergency telephone number

- Emergency Telephone: 0800 043 0891 (technical)
  0800 043 0892 (emergency)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Eye Dam. 1, H318
- Additional information: For full text of Hazard and EU Hazard statements: see section 16

2.2 Label elements

- Signal Word: Danger
- Hazard statements
  H318 - Causes serious eye damage.
- Precautionary statements
  P102 - Keep out of reach of children.
  P280 - Wear protective gloves/protective clothing/eye protection/face protection.
  P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
  P501 - Dispose of contents/container to an authorised waste collection point

SECTION 2: Hazards identification (....)

- Supplemental Hazard information (EU)
  None

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	SCL/ M-Factor/ ATE	REACH Registration Number	WEL/ OEL
Sodium hydrogensulphate	> 93 %	7681-38-1	231-665-7	Eye Dam. 1, H318	-	01-2119552465-36-XXXX	No

3.2 Mixtures

- Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures

- Contact with skin
  After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water
  Contaminated clothing should be laundered before reuse
  Get medical advice/attention.

- Contact with eyes
  If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes
  Irrigate eyes thoroughly whilst lifting eyelids
  Remove contact lenses, if present and easy to do. Continue rinsing.
  Get immediate medical advice/attention.

- Ingestion
  Rinse mouth with water (do not swallow)
  Give plenty of water to drink
  Do NOT induce vomiting.
  Get medical advice/attention.

- Inhalation
  If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
  IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
  Causes redness and swelling
  May cause severe damage with formation of corneal ulcers and permanent impairment of vision.

- Contact with skin
  Causes redness and irritation
  May cause blistering of the skin

- Ingestion
  May disturb the mucous membranes

SECTION 4: First aid measures (....)

May cause stomach pain
The ingestion of significant quantities may cause burning sensation

- Inhalation
  May cause respiratory tract irritation.
  May cause shortness of breath
  May cause coughing
  May cause dry throat

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media: Dry powder; carbon dioxide; water spray; alcohol resistant foam
- Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

- In a fire or if heated, a pressure increase will occur and the container may burst
- Contact with metals liberates flammable gas
- Gives off irritating or toxic fumes (or gases) in a fire.
- Decomposition products may include sulphur oxides

5.3 Advice for firefighters

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
- Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Rescuers should take suitable precautions to avoid becoming casualties themselves
- Personal precautions for emergency responders:
- No action shall be taken involving any personal risk or without suitable training
- Personal precautions for non-emergency personnel: Avoid formation of dust; Do not breathe dust; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Wear self-contained breathing apparatus (SCBA); Wear suitable protective clothing, eye/face protection and gloves; Natural rubber are recommended

6.2 Environmental precautions

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If contamination of drainage systems or water courses is unavoidable, immediately inform appropriate authorities

6.3 Methods and material for containment and cleaning up

- Stop leak if safe to do so.
- Small spills
  Wipe up spillage with damp absorbent cloth or towel
- Large spills
  Avoid formation of dust
  Sweep or shovel-up spillage and remove to a safe place
  Place in appropriate container
  Seal containers and label them

SECTION 6: Accidental release measures (....)

Remove contaminated material to safe location for subsequent disposal
Seek expert advice for removal and disposal of all contaminated materials and wastes
Flush spill area with copious amounts of water

6.4 Reference to other sections

- See section(s): 7, 8 & 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Use only in well ventilated areas
- Avoid contact with metals
- Avoid contact with skin and eyes
- Prevent formation of dust
- Do not breathe dust
- Wear protective clothing as per section 8
- Do not eat, drink or smoke when using this product.
- Contaminated clothing should be laundered before reuse
- Contaminated work clothing should not be allowed out of the workplace.
- Use good personal hygiene practices
- Wash thoroughly after handling.
- Ensure eyewash stations and safety showers are nearby

7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool, dry, well ventilated place
- Keep container tightly closed.
- Protect from moisture
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep away from food, drink and animal feedingstuffs
- Incompatible with metals

7.3 Specific end use(s)

- Pool / spa treatment

SECTION 8: Exposure controls/personal protection

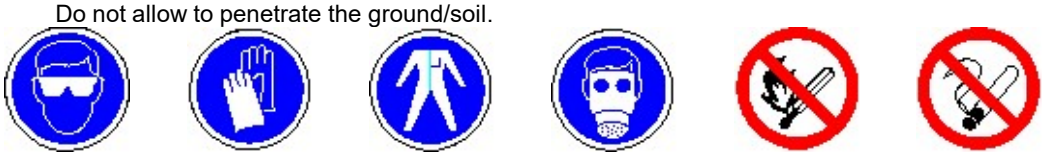
8.1 Control parameters

- If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
  Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace exposure - Measurement of exposure by inhalation to chemical agents - Strategy for testing compliance with occupational exposure limit values). European Standard EN 14042 (Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m³ (8hr TWA) total inhalable dust; 4 mg/m³ (8hr TWA) total respirable dust
- PNEC aqua (freshwater) 11.09 mg/L
- PNEC aqua (intermittent releases, freshwater) 17.66 mg/L
- PNEC aqua (marine water) 1.109 mg/L
- PNEC (STP) 800 mg/L
- PNEC sediment (freshwater) 40.2 mg/kg
- PNEC sediment (marine water) 4.02 mg/kg
- PNEC terrestrial (soil) 1.54 mg/kg

SECTION 8: Exposure controls/personal protection (....)

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- Engineering controls
  Ensure adequate ventilation
  Engineering controls should be provided to prevent the need for ventilation
  Use local exhaust ventilation and/or enclosures.
- Respiratory protection
  In case of insufficient ventilation, wear suitable respiratory equipment
  Where a reusable half mask respirator is required, use EN 140 mask and EN 143 particle filter, or EN 1827
  Where a full face mask respirator is required, use EN 136, with particle filter EN 143
  Respiratory protection: Particle filter P2
- Eye/face protection
  Wear goggles giving complete eye protection approved to standard EN 166.
- Skin protection
  Wear suitable protective clothing
  Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
  The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.
  Suitable glove material: Rubber (natural, latex). Chloroprene rubber. Butyl rubber. Polyvinyl chloride (PVC).
  Thickness: ≥ 0.5 mm
  Nitrile rubber.
  Thickness: ≥ 0.35 mm
  Viton rubber (fluoro rubber).
  Thickness: ≥ 0.4 mm
  Breakthrough time: > 480 minutes.
- Hygiene measures
  Do not eat, drink or smoke when using this product.
  Use good personal hygiene practices
  Contaminated work clothing should not be allowed out of the workplace.
  Contaminated clothing should be laundered before reuse
  Wash thoroughly after handling.
  Ensure eyewash stations and safety showers are nearby
- Environmental exposure controls
  Do not allow to enter public sewers and watercourses
  Do not allow to penetrate the ground/soil.



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: White solid
- Odour: None
- Odour threshold: No information available
- pH: No information available

SECTION 9: Physical and chemical properties (....)

- Melting point/freezing point: 315 °C @ 101.3 kPa
- Initial boiling point and boiling range: No information available
- Flashpoint: Not applicable
- Evaporation Rate: No information available
- Flammability (solid,gas): Not flammable
- Upper/lower flammability or explosive limits: Not applicable
- Vapour Pressure: Not applicable
- Vapour Density: Not applicable
- Relative Density: Not determined
- Solubility(ies): Solubility in water: 285 g/L @ 25 °C
- Partition Coefficient (n-Octanol/Water): Not applicable. Substance is inorganic.
- Auto-ignition temperature: No information available
- Decomposition temperature: 460°C
- Viscosity: No information available
- Explosive Properties: Not applicable
- Oxidising Properties: Not oxidising

9.2 Other information

- Molecular weight: 120.06

SECTION 10: Stability and reactivity

10.1 Reactivity

- Contact with metals liberates flammable gas

10.2 Chemical stability

- Hygroscopic

10.3 Possibility of hazardous reactions

- Reacts with metals liberating hydrogen
- Reactions with the following materials may cause explosions: calcium hypochlorite, starch, sodium carbonate.
- The following materials may react violently with the product: acetic anhydride.

10.4 Conditions to avoid

- Avoid formation of dust
- Keep away from heat and moisture

10.5 Incompatible materials

- Incompatible with metals
- Incompatible with alkalis (strong bases)
- Incompatible with strong oxidizing substances
- Incompatible with calcium hypochlorite, starch, sodium carbonate, acetic anhydride.

10.6 Hazardous decomposition products

- Decomposition products may include sulphur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute Toxicity
  Based on available data, the classification criteria are not met
  LD_{50} (oral, rat) 2 140 mg/kg bw
  Read-across data. Sulphuric acid (H_2SO_4)

SECTION 11: Toxicological information (....)

LC_{50} (inhalation, rat) > 2.4 mg/L (4 h)
Read-across data. Sodium sulphate
Test method(s): OECD 436.

- Skin corrosion/irritation
  Based on available data, the classification criteria are not met
  Erythema/eschar score: No erythema (0).
  Oedema score: No oedema (0).
  Test method(s): OECD 404.

- Serious eye damage/irritation
  Causes serious eye damage
  Test method(s): OECD 405.

- Respiratory or skin sensitisation
  Based on available data, the classification criteria are not met
  Guinea pig maximization test (GPMT): Not sensitising.
  Read-across data. Sodium sulphate.
  Test method(s): OECD 406.

- Germ cell mutagenicity
  No evidence of mutagenic effects
  Gene mutation: Negative.
  Read-across data. Sodium sulphate.
  Test method(s): OECD 476.

- Carcinogenicity
  No evidence of carcinogenic effects

- Reproductive toxicity
  No evidence of reproductive effects
  Reproductive toxicity - fertility
  Screening: NOEL 1 000 mg/kg/day, oral, rat
  Read-across data. Sodium sulphate.
  Test method(s): OECD 421.

  Reproductive toxicity - development
  Developmental toxicity: NOAEL: 2 800 mg/kg/day, oral, mouse
  Read-across data. Sodium sulphate.

- Specific target organ toxicity (STOT) - single exposure
  Based on available data, the classification criteria are not met

- Specific target organ toxicity (STOT) - repeated exposure
  Based on available data, the classification criteria are not met
  NOAEL (oral, rat): 1 000 mg/kg bw/day (sodium sulphate)

- Aspiration hazard
  Based on available data, the classification criteria are not met

- Contact with eyes
  Causes redness and swelling
  May cause severe damage with formation of corneal ulcers and permanent impairment of vision.

- Contact with skin
  May cause redness and irritation
  May cause blistering of the skin

- Ingestion
  May disturb the mucous membranes
  May cause stomach pain
  The ingestion of significant quantities may cause burning sensation

- Inhalation
  May cause respiratory tract irritation.
  May cause shortness of breath

SECTION 11: Toxicological information (....)

May cause coughing
May cause dry throat

- Other information
  In contact with water the product forms sulphuric acid that can cause burns

SECTION 12: Ecological information

12.1 Toxicity

- Based on available data, the classification criteria are not met
- LC_{50} (fish) 7.96 g/L (4 days)
- LC_{50} (aquatic invertebrates) 1.766 g/L (48 h)
- EC_{50} (aquatic algae) 1.9 g/L
- Chronic toxicity (aquatic invertebrates): NOEC (7 days) 1 109 mg/L, Ceriodaphnia dubia

12.2 Persistence and degradability

- Not applicable; inorganic

12.3 Bioaccumulative potential

- Not applicable; inorganic

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

12.6 Other adverse effects

- No information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Do not reuse empty containers without commercial cleaning or reconditioning

13.2 Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)
- Hazardous Property Code(s): HP 4 Irritant

SECTION 14: Transport information

Not classified as hazardous for transport

14.1 UN number or ID number

- UN No.: Not applicable

14.2 UN proper shipping name

- Proper Shipping Name: Not applicable

14.3 Transport hazard class(es)

- Hazard Class: Not applicable

SECTION 14: Transport information (....)

14.4 Packing group

- Packing Group: Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified
- No special precautions are required for this product

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not Classified

14.8 Road/Rail (ADR/RID)

- ADR UN No.: Not applicable
- Proper Shipping Name: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.9 Sea (IMDG)

- IMDG UN No.: Not applicable
- Proper Shipping Name: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

14.10 Air (ICAO/IATA)

- ICAO UN No.: Not applicable
- Proper Shipping Name: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15: Regulatory information

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

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe

15.2 Chemical safety assessment

- A REACH chemical safety assessment has been carried out

SECTION 16: Other information

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of PLASTICA'S limited knowledge and belief, accurate, and reliable as of the date of authorisation of this safety data sheet. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to be satisfied as to the suitability and completeness of such information for the product as used.

Sources of data: Information from published literature and supplier safety data sheets

Revision No. 2.0.0. Revised December 2020.
Changes made: Updated to conform to latest version of REACH

SECTION 16: Other information (....)

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H318: Causes serious eye damage

Acronyms

- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level
- EC: European Community
- EC_{50}: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC_{50}: Lethal Concentration, 50%
- LD_{50}: Lethal Dose, 50%
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- SCL: Specific Concentration Limit
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

--- end of safety datasheet ---