

SAFETY DATA

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

1.1. Product identifier

Trade name

Hydro-X

Product no.

-

REACH registration number

Not applicable

Other means of identification

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

Relevant identified uses of the substance or mixture

NA

Uses advised against

-

The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Hydro-X Water Treatment Ltd
Eden Place
Outgang Lane
Dinnington
Sheffield
S25 3QT

Tel.: +44 (0) 1909 565133

E-mail

technical@hydro-x.co.uk

1.4. Emergency telephone number

Tel.: +44 (0) 1909 565133

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Corr. 1A, Eye Dam. 1, Met. Corr. 1 // H318, H314, H290

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger!

Hazard statement(s)

May be corrosive to metals. (H290)

Causes severe skin burns and eye damage. (H314)

Safety statement(s)	General	-
	Prevention	Wear eye protection/protective clothing/protective gloves. (P280)
	Response	Immediately call a POISON CENTER/doctor. (P310) IF SWALLOWED: rinse mouth. Do NOT induce vomiting. (P301+P330+P331) IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. (P303+P361+P353) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
	Storage	-
	Disposal	-
Identity of the substances primarily responsible for the major health hazards		
sodium hydroxide		

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances

NAME: sodium hydroxide
IDENTIFICATION NOS.: CAS-no: 1310-73-2 EC-no: 215-185-5 REACH-no: 01-2119457892-27-xxxx Index-no: 011-002-00-6
CONTENT: 5-20%
CLP CLASSIFICATION: Met. Corr. 1, Skin. Corr. 1A
H290, H314

NAME: Tannins
IDENTIFICATION NOS.: CAS-no: 1401-55-4 EC-no: 215-753-2
<1%

CONTENT:
CLP CLASSIFICATION: NA

NAME: trisodium orthophosphate
IDENTIFICATION NOS.: CAS-no: 7601-54-9 EC-no: 231-509-8 REACH-no: 01-2119489800-32-xxxx
CONTENT: <1%

CLP CLASSIFICATION: STOT SE 3, Skin Irrit. 2, Eye Irrit. 2
H315, H319, H335

(*) See full text of H/R-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

Other informations

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar.

Inhalation

Get the person into fresh air and stay with them.

Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses. Flush eyes with plenty of water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Contact a doctor at once.

Ingestion

Give the person plenty to drink and stay with the person. If the person feels unwell, contact a doctor immediately and take this safety data sheet or the label from the product with you. Do not induce vomiting unless recommended by the doctor. Hold head facing down so that no vomit runs back into the mouth and throat.

Burns

Rinse with water until the pain stops and continue for 30 minutes.

4.2. Most important symptoms and effects, both acute and delayed

Tissue damaging effects: This product contains substances which are corrosive. If vapour or aerosols are inhaled, it can result in damage to lungs, irritation and burns in the respiratory organs as well as coughing. Corrosive substances cause irreversible damage to eyes and acid burns to skin.

Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

No special

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances. Avoid inhalation of vapours from waste material.

6.2. Environmental precautions

No specific requirements.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

6.4. Reference to other sections

See section on "Disposal considerations" with regard to the handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, consumption of food or liquid, and storage of tobacco, food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature

Room temperature 18 to 23°C (Storage on stock, 3 to 8°C)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

sodium hydroxide (EH40/2005)

Long-term exposure limit (8-hour TWA reference period): - ppm | - mg/m³

Short-term exposure limit (15-minute reference period): - ppm | 2 mg/m³

DNEL / PNEC

DNEL (sodium hydroxide): 1 mg/m³ - Exposure: Inhalation - Duration: Long term – Local effects

DNEL (trisodium orthophosphate): 4,07 mg/m³ - Exposure: Inhalation - Duration: Long term – Systemic effects - Workers

PNEC (trisodium orthophosphate): 0,05 mg/l - Exposure: Freshwater

PNEC (trisodium orthophosphate): 0,005 mg/l - Exposure: Marine water

PNEC (trisodium orthophosphate): 0,5 mg/l - Exposure: Intermittent release

PNEC (trisodium orthophosphate): 50 mg/l - Exposure: Sewage Treatment Plant

8.2. Exposure controls

Compliance with the stated exposure limits values should be checked on a regular basis.

General recommendations

Observe general occupational hygiene.

Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

Exposure limits

Trade users are covered by the rules of the working environment legislation on maximum concentrations for exposure. See work hygiene threshold values below.

Appropriate technical measures

Airborne gas and dust concentrations must be kept as low as possible and below the current threshold values (see below). Use for example an exhaust system if the normal air flow in the work room is not sufficient. Make sure that eyewash and emergency showers are clearly marked.

Hygiene measures

Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible collect spillage during work.

Individual protection measures, such as personal protective equipment



Generally

Only CE-marked personal protection equipment should be used. Use only CE marked protective equipment.

Respiratory Equipment

No specific requirements.

Skin protection

Special work clothing should be used. When working with this product for a long period of time, use a protective suit.

Hand protection

Recommended: Household gloves. . See the manufacturer's instructions

Eye protection

Use face shield. Use safety glasses with a side shield as an alternative.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Colour	Odour	pH	Viscosity	Density (g/cm ³)
Liquid	Tan	Characteristic	~ 13	-	1,175 / 1,050

Phase changes

Melting point (°C)	Boiling point (°C)	Vapour pressure (mm Hg)
-	-	-

Data on fire and explosion hazards

Flashpoint (°C)	Ignition (°C)	Self ignition (°C)
-	-	-

Explosion limits (Vol %)	Oxidizing properties
-	-

Solubility

Solubility in water

n-octanol/water coefficient

9.2. Other information

Solubility in fat

Additional information

-

N/A

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section on "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

Do not expose to heat (e.g. sunlight), because it can lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Substance

Species

Test

Route of exposure

Result

trisodium orthophosphate

Rat

LD50

Dermal

> 2000 mg/kg bw

trisodium orthophosphate

Rat

LD50

Oral

> 2000 mg/kg bw

Tannins

Rat

LD50

Oral

2260 mg/kg bw

Tannins

Mouse

LD50

Oral

5000 mg/kg bw

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Data on substance: sodium hydroxide

Test: no guideline followed

Result: Corrosive

Data on substance: Tannins Result: Not irritant

Causes serious eye damage.

Data on substance: Tannins

Result: Not irritant

Data on substance: sodium hydroxide

Test: no guideline followed

Serious eye damage

Result: Corrosive

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Long term effects

Tissue damaging effects: This product contains substances which are corrosive. If vapour or aerosols are inhaled, it can result in damage to lungs, irritation and burns in the respiratory organs as well as coughing.

Corrosive substances cause irreversible damage to eyes and acid burns to skin.

Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled.

Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Species	Test	Test duration	Result
trisodium orthophosphate	Daphnia EC50	trisodium orthophosphate	48 h	> 100 mg/L
Fish LC50	trisodium orthophosphate	Algae EC50	96 h	> 100 mg/L
	sodium hydroxide	Daphnia EC50	72 h	> 100 mg/L
			48 h	40,4 mg/L

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
sodium hydroxide	Yes	No data available	No data available

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BFC
sodium hydroxide	No	No data available	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

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

Waste

EWC code

160305/160508/100122

Specific labelling

-

Contaminated packing

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

SECTION 14: Transport information

This product is covered by the conv
goods. **14.1 – 14.4**

ADR/RID 1824

14.1. UN number

14.2. UN proper shipping name SODIUM HYDROXIDE SOLUTION

14.3. Transport

hazard class(es) 8

14.4. Packing group II

Notes -

Tunnel restriction code (E)

IMDG

UN-no. 1824

Proper Shipping Name SODIUM HYDROXIDE SOLUTION

Class 8

PG* II

EmS F-A, S-B

MP** No

Hazardous constituent SODIUM HYDROXIDE

IATA/ICAO

UN-no.

Proper Shipping Name

Class

PG*

14.5. Environmental hazards

-

14.6. Special precautions for user

-

| to Annex II of MARPOL73/78 and the IBC Code

14.7. Transport in bulk accord

No data available

(*) Packing group

(**) Marine pollutant

SECTION 16: Other information

Full text of H/R-phrases as mentioned in section 3

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage. H315

- Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation