SAFETY DATA SHEET

HYDROCID 338

Compilation date: 22/02/2018
Revision No: 4

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

1.1. Product identifier

Product name: HYDROCID 338

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

Use of substance / mixture: Industrial Biocide for use in evaporative cooling systems and process waters.

1.3. Details of the supplier of the safety data sheet

Company name: Hydro-X Limited
Eden Place
Outgang Lane
Dinnington
Sheffield
S25 3QT
Tel: 01909 565133
Fax: 01909 564301
Email: richard.sanderson@hydro-x.co.uk

1.4. Emergency telephone number

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Aquatic Acute 1: H400; Skin Corr. 1A: H314
Most important adverse effects: Causes severe skin burns and eye damage. Very toxic to aquatic life.

2.2. Label elements

Label elements:
Hazard statements: H314: Causes severe skin burns and eye damage.
H400: Very toxic to aquatic life.
Hazard pictograms: GHS05: Corrosion
GHS09: Environmental

Signal words: Danger
Precautionary statements: P352: Wash with plenty of water.
P262: Do not get in eyes, on skin, or on clothing.
P273: Avoid release to the environment.
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.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P391: Collect spillage.
P405: Store locked up.

[cont...]

2.3. Other hazards

Other hazards: Contact with acids liberates toxic gas. Causes burns.

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

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

SODIUM HYPOCHLORITE SOLUTION CL ACTIVE - REACH registered number(s): 01-2119488154-34-XXXX

EINECS	CAS	PBT / WEL	CLP Classification	Percent
231-668-3	7681-52-9	-	Skin Corr. 1B: H314; Aquatic Acute 1: H400; -: EUH031	1-10%

SODIUM HYDROXIDE - REACH registered number(s): 01-2119457892-27-XXXX

215-185-5	1310-73-2	-	Skin Corr. 1A: H314	1-10%

Contains: Stabilised blend of bromide and hypochlorite species.

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. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

[cont...]

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Do not breath vapours/mists

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Polypropylene or polyethylene containers.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

SODIUM HYDROXIDE

Workplace exposure limits: **Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	2 mg/m3	2 mg/m3	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

[cont...]

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.
Respiratory protection: Approved repiratory protection must be used if the workplace exposure limit is likely to be exceeded. Self-contained breathing apparatus must be available in case of emergency.
Hand protection: Nitrile gloves. Viton gloves. Breakthrough time of the glove material > 1 hour. Chemical resistant protective gloves (EN 374)
Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.
Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid
Colour: Clear to pale yellow
Odour: Characteristic odour
Solubility in water: Soluble
Viscosity: Non-viscous
Relative density: 1.32 - 1.36 **pH:** 12 - 13

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
Oral Calcu	MUS	LD50	5800	mg/kg
Oral Calcu	RAT	LD50	5800	mg/kg

[cont...]

Hazardous ingredients:

SODIUM HYPOCHLORITE SOLUTION...100% CL ACTIVE

ORL	MUS	LD50	5800	mg/kg

SODIUM HYDROXIDE

IPR	MUS	LD50	40	mg/kg
ORL	RBT	LDLO	500	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.
Eye contact: Corneal burns may occur. May cause permanent damage.
Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.
Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.
Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
Daphnia magna	48H LC50	4.3	mg/l
Fathead minnow	96H LC50	8.3	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	4.5	mg/l
SHEEPSHEAD MINNOWS (Cyprintodon variegat	96H LC50	16	mg/l

Hazardous ingredients:

SODIUM HYPOCHLORITE SOLUTION...100% CL ACTIVE

FISH	96H LC50	1	mg/l

SODIUM HYDROXIDE

Fish	96H LC50	4	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

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

[cont...]

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company. Disposal should be carried out by licenced contractors. Do not allow entry to drains or waterways.

Disposal of packaging: Containers must be disposed of in a safe way.

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

UN number: UN3266

14.2. UN proper shipping name

Shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
(SODIUM HYPOCHLORITE SOLUTION...100% CL ACTIVE; SODIUM HYDROXIDE)

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: Yes **Marine pollutant:** No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 2

Section 15: Regulatory information

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

Specific regulations: EU DIRECTIVES
Regulation (EC) No 1907/2006 the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures The EU Biocides Regulation 528/2012 (EU BPR).

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.
* indicates text in the SDS which has changed since the last revision.

[cont...]

Phrases used in s.2 and s.3: EUH031: Contact with acids liberates toxic gas.
H314: Causes severe skin burns and eye damage.
H400: Very toxic to aquatic life.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.