SAFETY DATA SHEET

RUST-BLOC

Infosafe No.: HC03L
ISSUED Date : 27/03/2018
ISSUED by: Hydro-Chem Pty Ltd

1. IDENTIFICATION

GHS Product Identifier
RUST-BLOC

Company Name
Hydro-Chem Pty Ltd

Address
23B Industrial Drive Braeside
VIC 3195

Telephone/Fax Number
Tel: (03) 9553 1011

Emergency phone number
1300 558 788

Emergency Contact Name
Tony Ventura

Recommended use of the chemical and restrictions on use
Nitrite based corrosion and scale inhibitor for use in open and closed recirculating systems.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
Acute Toxicity - Oral: Category 3
Skin Corrosion/Irritation: Category 1A

Signal Word (s)
DANGER

Hazard Statement (s)
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.

Pictogram (s)
Corrosion,Skull and crossbones

Precautionary statement – Prevention
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 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/physician.
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.

Precautionary statement – Storage
P405 Store locked up.

Precautionary statement – Disposal
P501 Dispose of contents/container to / in accordance with local regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition
All ingredients in this product are listed on the Australian Inventory of Chemical Substances (AICS).

Ingredients

Name	CAS	Proportion
Sodium nitrite	7632-00-0	30-60 %
Potassium hydroxide	1310-58-3	10-30 %

4. FIRST-AID MEASURES

Inhalation
Remove source of contamination or move victim to fresh air. Obtain medical advice immediately.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. If victim can swallow, have him/her drink 1 to 2 glasses (240 to 300 ml) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. Obtain medical attention immediately.

Skin
Avoid direct contact with this chemical. Wear impervious protective gloves, if necessary. As quickly as possible, flush contaminated area with lukewarm, gently running water for at least 30 minutes, by the clock. Under running water, remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts). If irritation persists, repeat flushing. Obtain medical attention immediately. Completely decontaminate clothing, shoes and leather goods before re-use or discard.

Eye contact
Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 30 minutes, by the clock, holding the eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If available, a neutral saline solution may be used to flush the contaminated eye(s) an additional 30 minutes. If irritation persists, repeat flushing. Obtain

medical attention immediately.

First Aid Facilities
Provide general supportive measures (warmth, comfort and rest). Consult a physician and/or the nearest poison control centre for all cases of ingestion or eye contact and all but trivial cases of inhalation or skin contact.

Advice to Doctor
Treat symptomatically as for strong alkalis.

5. FIRE-FIGHTING MEASURES

Fire Fighting Measures
As in any fire, wear an approved self-contained breathing apparatus in pressure-demand, and full protective gear.

Specific Hazards Arising From The Chemical
EXPLOSION DATA - SENSITIVITY TO MECHANICAL IMPACT Not applicable
EXPLOSION DATA - SENSITIVITY TO STATIC CHARGE Not applicable
FIRE HAZARD COMMENTS Potassium hydroxide and its solutions will not burn or support combustion. However, reaction of potassium hydroxide with a number of commonly encountered materials can generate sufficient heat to ignite nearby combustible materials.
FIRE EXTINGUISHING AGENTS Use an extinguisher appropriate to the material which is burning
FIRE FIGHTING PROCEDURES Water can be used to extinguish a fire in an area where the product is stored.
COMBUSTION PRODUCTS None
Firefighters to wear full protective clothing with breathing apparatus.

Hazchem Code
2X

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal
PRECAUTIONS Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear adequate protective clothing and equipment.
CLEANUP Contain spill or leak. Do not allow entry into sewers or waterways. Neutralize final traces and flush area with water. Spilled solutions should be contained by diking with inert materials, such as sand or earth. Solutions can be recovered or carefully diluted with water and neutralized with acids such as acetic or hydrochloric acid.
DISPOSAL Federal, state and local regulations should be reviewed prior to disposal. May be possible to neutralize, dilute and flush the material into a sewer. Harmful to aquatic life in high concentrations.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Handle and open containers with care.
Gently agitate drums before use to ensure homogeneity.
Do not empty into drains
Avoid prolonged or repeated contact with skin, eyes and clothing .
Ensure the appropriate personal protective equipment is used when handling this material.

Conditions for safe storage, including any incompatibilities
Keep only in original container.

Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
EXPOSURE CONTROL Note: Exposure to this material can be controlled in many ways. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Use this general information to help develop specific control measures. Ensure that control systems are properly designed and maintained. Comply with occupational, environmental, fire, and other applicable regulations.

Appropriate Engineering Controls
ENGINEERING CONTROLS Engineering control methods to reduce hazardous exposures are preferred. General methods include mechanical ventilation (dilution and local exhaust). Use local exhaust ventilation, and process replacement air to make up for air removed by exhaust systems.

Personal Protective Equipment
Wearing of the following personal protective equipment is recommended.
Safety glasses,goggles or faceshield as appropriate.
PVC or rubber gloves.
Appropriate protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form
Liquid

Appearance
Dark straw coloured, clear liquid
ODOUR THRESHOLD Odourless WARNING PROPERTY (ODOUR/IRRIT.) Poor - no odour

Boiling Point
Not Allocated

Specific Gravity
(SG) 1.416 @ 20 deg C (water=1)

pH
Approx. 14 (neat solution)

Vapour Pressure
Not Allocated

Flash Point
Non-combustible (does not burn)

Flammability
See Safe Handling Information.

Flammable Limits - Lower
Not Allocated

Explosion Properties
(LEL) Not applicable - (UEL) Not applicable

Other Information
CONVERSION FACTOR Not applicable
EVAPORATION RATE Not applicable
CRITICAL TEMPERATURE Not applicable

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions
STABILITY Stable
INCOMPATIBILITY -MAT'LS TO AVOID ACIDS - violent reaction can occur, yielding heat and pressure which can burst an enclosed container.
ORGANOHALOGEN COMPOUNDS - may react to form spontaneously combustible compounds. MALEIC ANHYDRIDE AND NITRO AND CHLORO ORGANIC COMPOUNDS - may react explosively.
HAZARDOUS DECOMPOSITION PRODUCTS None
HAZARDOUS POLYMERIZATION Does not occur
CORROSIVITY TO METALS Corrosive to aluminum, tin, zinc. Corrosive to steel at elevated temperatures.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
ANIMAL TOXICITY DATA LD50 (rat, oral): 1000mg/kg
Irritant Dose (rabbits, dermal): 150mg/24 hr - severe skin irritant
Irritant Dose (rabbits, ocular): 3 mg/24 hr - Moderate eye irritant
More detailed information about the effects of chemicals on health can be obtained from Worksafe Australia.
As sodium nitrite LD50 (oral rat) 85 mg/kg.

Ingestion
May cause irritation to mouth, throat and stomach.
There are no reported cases of industrial workers ingesting weak potassium hydroxide or its solutions.

Inhalation
Inhalation of mists or aerosols can produce respiratory irritation.
The vapour may be an irritant to the mucous membranes and respiratory tract.

Skin
Contact with skin may result in irritation.
Prolonged or repeated exposure may cause skin sensitization.
Skin effects may be delayed.

Eye
Corrosive to eyes; contact can cause corneal burns.
Permanent eye damage may occur.
Effects may be delayed.

Chronic Effects
HEALTH EFFECTS There have been no documented effects due to long-term exposure to weak potassium hydroxide.
CARCINOGENICITY Potassium and sodium hydroxide have been implicated as a cause of cancer of the oesophagus in individuals who have ingested it. The cancer may develop 12 to 42 years after the ingestion incident. Similar cancers have been observed at the sites of severe thermal burns. These cancers may be due to tissue destruction and scar formation rather than the action of the hydroxide itself. Not classed as a carcinogen by Worksafe Aust
TERATOGENICITY AND EMBRYOTOXICITY Information not available
TOXICOLOGICAL SYNERGISTIC MATERIALS Information not available
MUTAGENICITY Insufficient information
POTENTIAL FOR ACCUMULATION None

12. ECOLOGICAL INFORMATION

Ecotoxicity
The product is alkaline. If large spills occur a water pH rise could be responsible for an environmental effect on aquatic organisms.

Persistence and degradability
Data not available

Mobility
Data not available

Environmental Protection
Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

Waste Disposal
Refer to State Land Waste Management Authority or a Licensed disposal contractor for disposal.
Empty containers must be decontaminated, rinse with water before landfill disposal.

14. TRANSPORT INFORMATION

U.N. Number
1760

UN proper shipping name
CORROSIVE LIQUID, N.O.S.

Transport hazard class(es)
8

Packing Group
III

Hazchem Code
2X

Storage and Transport
STORAGE CONDITIONS Store in water-tight containers in a cool, dry place separate from the normal work area. Materials that react violently with potassium hydroxide and easily ignitable materials should not be stored in the same area. Use corrosion-resistant structural materials, lighting and ventilation systems in the storage area. Store in suitable, labelled containers. Keep containers closed when not in use and when empty. Protect from damage. Post warning signs when appropriate. Keep storage area separate from populated work areas. Inspect periodically for deficiencies such as damage or leaks.
HANDLING Avoid generating mist or dust. Label containers and keep closed when not in use. Empty containers may contain residues which are hazardous. Class 8 products are not to be loaded with class 1, 4.3, 5, 6 (when class 6 is a cyanide and class 8 is an acid), 7 or foodstuffs or foodstuff empties.

IERG Number
37

15. REGULATORY INFORMATION

Poisons Schedule
S6

Packaging & Labelling
As required by the ADG Code and the Standard for the Uniform Scheduling of Drugs and Poisons.

16. OTHER INFORMATION

References
*** BIBLIOGRAPHY (1) Sodium Hydroxide : chemical hazard summary no. 9 (C85-4E). CCOHS, 1985 (2) NIOSH pocket guide to chemical hazards. (Repr. with corr.) NIOSH, Feb. 1987. p. 208-209 (3) Documentation of the threshold limit values and biological exposure indices. 5th ed. ACGIH, 1986. p. 495 (4) Patty's industrial hygiene and toxicology. 3rd rev. ed. Vol. 2B. John Wiley & Sons, 1981. p. 3055-3056

Contact Person/Point

Normal Working Hours - Ph: (03) 9553 1011 Fax: (03) 9553 1387
Ask for the Facilities Manager, Sales Manager or Services Manager.
After Hours - Ph : 1300 558 788

Further information/advice is available to those persons responsible for the design of safe work practices on their written request to HydroChem.

This SDS summarises to the best of our knowledge at the date of issue, the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products.

Hydro-Chem Pty Ltd responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

If clarification or further information is required, the user should contact Hydro-Chem Pty Ltd using the contact details provided.

Revisions Highlighted
Sections : 2.

Other Information
ABBREVIATIONS:
ACGIH - American Conference of Government Industrial Hygienists
OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
NOHSC - National Occupational Health & Safety Commission

END OF SDS