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GENGARD GN8203

1. Identification

Product identifier GENGARD GN8203

Other means of identification None.

Recommended use of the chemical and restrictions on use

Restrictions on use Corrosion inhibitor Industrial usage.

Company/undertaking identification

SUEZ WATER TECHNOLOGIES & SOLUTIONS PTY

LIMITED

103 Raubers Road, Northgate, QLD 4013 Australia Level 6, 63 Albert Street, Auckland, 1010, New Zealand

Tel: 1800 064 140 (AUS) 0800 945635 (NZ)

Emergency telephone

+61-290372994 (Aust) +64-98010034 (NZ)

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazardsCorrosive to metalsCategory 1Health hazardsSkin corrosion/irritationCategory 1Serious eye damage/eye irritationCategory 1

Environmental hazards Not classified.

Label elements, including precautionary statements

Hazard symbol(s)



Corrosion

Signal word Danger

Hazard statement(s) May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye

damage.

Precautionary statement(s)

Prevention Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling.

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

Response IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off

immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Wash contaminated clothing

before reuse. Absorb spillage to prevent material damage.

Storage Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not

result in classification

None known.

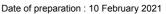
Supplemental information None.

3. Composition/information on ingredients

Mixtures



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Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Sodium hydroxide	1310-73-2	3 - < 5
Chlorotolyltriazole sodium salt	202420-04-0	1 - < 3

4. First-aid measures

Description of necessary first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or Skin contact

poison control center immediately. Chemical burns must be treated by a physician. Wash

contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Personal protection for first-aid

responders

Ingestion

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may Symptoms caused by exposure

include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

blindness could result.

Medical attention and special

treatment

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation.

Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire

fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Move containers from fire area if you can do so without risk.

Hazchem code

None.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be

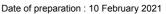
contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the

SDS.

Avoid discharge into drains, water courses or onto the ground. **Environmental precautions**







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Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate

ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene

practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls and personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

 Components
 Type
 Value

 Sodium hydroxide (CAS
 Ceiling
 2 mg/m3

1310-73-2)

US. ACGIH Threshold Limit Values

ComponentsTypeValueSodium hydroxide (CAS
1310-73-2)Ceiling2 mg/m3

UK. EH40 Workplace Exposure Limits (WELs)

ComponentsTypeValueSodium hydroxide (CASSTEL2 mg/m3

1310-73-2)

Biological limit valuesNo biological exposure limits noted for the ingredient(s).

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. **Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material

and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance Liquid
Physical state Liquid.
Form Liquid.

Color Amber to dark brown



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Slight ammonia Odor **Odor threshold** Not available.

pH (concentrated product) 13.5

12.3 (5% SOL.) pH in aqueous solution

-7 °C Melting point/freezing point Initial boiling point and boiling

100 °C

range

Flash point Not available. < 1(Ether = 1) **Evaporation rate** Not applicable. Flammability (solid, gas) Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available. Not available. Explosive limit - upper (%) 18 mm Hg Vapor pressure

21 °C Vapor pressure temp. < 1 (Air = 1)Vapor density

Relative density 1.2 Relative density temperature 21 °C

Solubility(ies)

100 % Solubility (water)

Not available. **Partition coefficient**

(n-octanol/water)

Not available. **Auto-ignition temperature** Not available. **Decomposition temperature** 35 cps **Viscosity**

21 °C Viscosity temperature Other physical and chemical parameters

> **Explosive properties** Not explosive. **Oxidizing properties** Not oxidizing. 12.3 (5% SOL.) pH in aqueous solution

-4 °C Pour point Specific gravity 1.197

0 % (Estimated)

10. Stability and reactivity

Reactivity May be corrosive to metals.

Not available. **Chemical stability**

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with

incompatible materials.

Strong oxidizing agents. Metals. Incompatible materials

Hazardous decomposition

products

No hazardous decomposition products are known.



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11. Toxicological information

Information on possible routes of exposure

Inhalation May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to exposure Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may

include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

blindness could result.

Acute toxicity Not known.

Product Species Test Results

GENGARD GN8203 (CAS Mixture)

Acute Dermal

LD50 Rabbit > 5000 mg/kg, (Calculated according to

GHS additivity formula)

Oral

LD50 Rat > 5000 mg/kg, (Calculated according to

GHS additivity formula)

Components Species Test Results

Chlorotolyltriazole sodium salt (CAS 202420-04-0)

Acute Dermal

LD50 Rat > 5000 mg/kg

Oral

LD50 Rat 3100 mg/kg

Sodium hydroxide (CAS 1310-73-2)

Acute Dermal

LD50 Rabbit 1350 mg/kg

Oral

LD50 Rabbit > 500 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. **Serious eye damage/irritation** Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not available.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not available.

Specific target organ toxicity -

repeated exposure

Not available.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.



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12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

 Product
 Species
 Test Results

 GENGARD GN8203 (CAS Mixture)
 Feed of the control of the contro

Aquatic

Crustacea LC50 Daphnia magna 911 mg/L, Static Renewal Bioassay, 48

hour, (pH adjusted)

Mysid Shrimp 300 mg/L, Estimated Acute Toxicity, 96

hour, (Similar Product)

NOEL Daphnia magna 500 mg/L, Static Renewal Bioassay, 48

hour, (pH adjusted)

Fish LC50 Fathead Minnow 276 mg/L, Static Renewal Bioassay, 96

hour, (pH adjusted)

Menidia beryllina (Silversides) 400 mg/L, Estimated Acute Toxicity, 96

hour, (Similar Product)

Rainbow Trout 273 mg/L, Static Renewal Bioassay, 96

hour, (pH adjusted)

NOEL Fathead Minnow 125 mg/L, Static Renewal Bioassay, 96

hour, (pH adjusted)

Rainbow Trout 200 mg/L, Static Renewal Bioassay, 96

hour, (pH adjusted)

Bioaccumulative potential

Mobility in soil No data available for this product.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

Environmental fate The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

- COD (mgO2/g) 275 (calculated data)
- BOD 5 (mgO2/g) 21 (calculated data)
- BOD 28 (mgO2/g) 43 (calculated data)
- Closed Bottle Test (% 14 (calculated data)

Degradation in 28 days)

- TOC (mg C/g) 86 (calculated data)

13. Disposal considerations

Disposal methodsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

ADG

UN number 176

UN proper shipping name

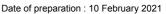
CORROSIVE LIQUID, N.O.S. (Chlorotolyltriazole sodium salt; Sodium hydroxide)

Transport hazard class(es)

Class 8 Subsidiary risk -



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Packing group

Environmental hazards Not available.

Hazchem code 2X

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number 1760

UN proper shipping name Transport hazard class(es)

CORROSIVE LIQUID, N.O.S. (Chlorotolyltriazole sodium salt; Sodium hydroxide)

Class 8
Subsidiary risk Packing group II
Environmental hazards No.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

ERG Code

UN number 1760

154

UN proper shipping name CORROSIVE LIQUID, N.O.S. (Chlorotolyltriazole sodium salt; Sodium hydroxide)

Transport hazard class(es)

Class 8
Subsidiary risk Packing group ||
Environmental hazards

Marine pollutant No.

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Not established.

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

ADG



IATA; IMDG



15. Regulatory information

Safety, health and environmental regulations

National regulations This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the

preparation of Safety Data Sheets for Hazardous Chemicals (May 2018).

Group Standard - Corrosion Inhibitors - Corrosive HSR002547



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Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E

Sodium hydroxide (CAS 1310-73-2)

Australia Medicines & Poisons Appendix F

Sodium hydroxide (CAS 1310-73-2)

Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 10

Sodium hydroxide (CAS 1310-73-2)

Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 5

Sodium hydroxide (CAS 1310-73-2)

Australia Medicines & Poisons Schedule 6

Sodium hydroxide (CAS 1310-73-2)

Australia Medicines & Poisons Schedule 7

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

High Volume Industrial Chemicals (HVIC)

Sodium hydroxide (CAS 1310-73-2)

> 1000000 TONNES See the regulation for additional information.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Resricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

International regulations



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On inventory (yes/no)*



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Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

Country(s) or region

International Inventories

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the government.

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

NSF Registered and/or meets

USDA (according to 1998

guidelines):

Registration No. – 148465

Category Code(s):

G5 Cooling and retort water treatment products G7 Boiler, steam line treatment products -

nonfood contact

Inventory name

16. Other information

Issue date10-February-2021Revision date10/02/2021References:No data available

DisclaimerThe information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only

information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

Revision information Composition / Information on Ingredients: Additional Components

Physical & Chemical Properties: Multiple Properties
Transport Information: Material Transportation Information

Regulatory Information: United States

Material Attributes & Uses; Experimental Data: Experimental Data

HazReg Data: Pacific Rim GHS: Classification



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