

## **GENGARD GN8115**

## 1. Identification

#### **Product identifier GENGARD GN8115**

Other means of identification None.

Recommended use of the chemical and restrictions on use **Recommended use Restrictions on use** 

Corrosion inhibitor Not available.

#### Company/undertaking identification

**VEOLIA WATER TECHNOLOGIES & SOLUTIONS** AUSTRALIA PTY LTD 103 Raubers Road, Northgate, QLD 4013 Australia C/o Buddle Findlay, Level 18, Hsbc Tower, 188 Quay Street, Auckland, 1010, New Zealand Tel: 1800 064 140 (AUS) 0800 945635 (NZ) Email: vtc.vwts.apacproductregulatory.all@veolia.com

### **Emergency telephone**

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

## 2. Hazard(s) identification

Classification of the hazardou	s chemical	
Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 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/vapors. 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.
Supplemental information	None.
Other hazards which do not result in classification	None known.



## **GENGARD GN8115**

## 3. Composition/information on ingredients

### **Mixtures**

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Sodium diethylenetriamine penta(methylenephosphonate)	22042-96-2	5- <10
Sodium hydroxide	1310-73-2	1- <5

## 4. First-aid measures

#### Description of necessary first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	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	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Symptoms caused by 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.
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	

## 5. Fire-fighting measures

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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	Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.



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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 breathe mist/vapors. 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 tightly closed container. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).
9 Experime controls and	never nel protoction

## 8. Exposure controls and personal protection

Control parameters F	Follow standard monitoring procedures.
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#### **Occupational exposure limits**

Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
US. ACGIH Threshold Limi	t Values	
Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3
UK. EH40 Workplace Expo	sure Limits (WELs)	
Components	Туре	Value
Sodium hydroxide (CAS 1310-73-2)	STEL	2 mg/m3
ological limit values	No biological exposure limits noted f	for the ingredient(s).
opropriate engineering ontrols	applicable, use process enclosures, maintain airborne levels below recor	used. Ventilation rates should be matched to conditions. If local exhaust ventilation, or other engineering controls to mmended exposure limits. If exposure limits have not been s to an acceptable level. Eye wash facilities and emergency dling this product.
dividual protection measures	s, for example personal protective eq	uipment (PPE)
Eye/face protection	Wear safety glasses with side shield	ls (or goggles) and a face shield.
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.	
/giene 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.	
Physical and chemical	properties	



## GENGARD GN8115

Color	Amber to dark brown
Odor	Slight ammonia
Odor threshold	Not available.
pH (concentrated product)	13.1
Melting point/freezing point	-6 °C
Initial boiling point and boiling range	104 °C
Flash point	> 101 °C P-M(CC)
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	losive limits
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	21 °C
Vapor density	< 1 (Air = 1)
Relative density	1.21
Relative density temperature	21 °C
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	26 cps
Viscosity temperature	21 °C
Other physical and chemical pa	rameters
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
pH in aqueous solution	12.1 (5% SOL.)
Pour point	-3 °C
VOC	0 % (Estimated)
10. Stability and reactivity	,
Reactivity	May be corrosive to metals.
Chamical stability	Material is stable under normal conditions

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Metals.
Hazardous decomposition products	No hazardous decomposition products are known.

## 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	Causes digestive tract burns.



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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		
Product	Species	Test Results
GENGARD GN8115		
<u>Acute</u>		
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
Sodium hydroxide (CAS 1310-73-	2)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	1350 mg/kg
Oral		
LD50	Rabbit	> 500 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/irritation	Causes serious eye damage.	
Respiratory or skin sensitizatio	n	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitiza	tion.
Germ cell mutagenicity	No data available to indicate product or any compor mutagenic or genotoxic.	nents present at greater than 0.1% are
Carcinogenicity	Based on available data, the classification criteria are not met.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.	
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may be harmful.	

## 12. Ecological information

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
Aquatic			
Crustacea	LC50	Daphnia magna	2549 mg/L, 48 hour (pH adjusted)
	NOEL	Daphnia magna	1000 mg/L, 48 hour (pH adjusted)
Fish	LC50	Fathead Minnow	502 mg/L, 96 hour (pH adjusted)
		Rainbow Trout	443 mg/L, 96 hour
	NOEL	Fathead Minnow	500 mg/L, 96 hour (pH adjusted)
		Rainbow Trout	200 mg/L, 96 hour
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.		
	No data is	available on the degradability of a	iny ingredients in the mixture.
- COD (mgO2/g)	235 (calculated data)		

Ecotoxicity



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GENGARD GNOTIS		
- BOD 5 (mgO2/g)	11 (calculated data)	
- BOD 28 (mgO2/g)	25 (calculated data)	
<ul> <li>Closed Bottle Test (% Degradation in 28 days)</li> </ul>	10 (calculated data)	
- TOC (mg C/g)	68 (calculated data)	
Bioaccumulative potential		
Bioconcentration factor (BCF)		
Sodium diethylenetriamine per	nta(methylenephosphonate)	< 10, OECD Guideline 305 (Bioconcentration: Flow-through Fish Test) Species: Carp (Cyprinus carpio carpio) Test Duration: 28 days
Mobility in soil	No data available for this produce	ct.
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.	
13. Disposal consideration	IS	
Disposal methods	Collect 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	1760	
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE PENTAMETHYLENE PHOSPHONIC ACID,SODIUM SALT; Sodium hydroxide)	
Transport hazard class(es)		
Class	8	
Subsidiary risk		
Packing group		
Environmental hazards	No	
Hazchem code	2X r Read safety instructions, SDS and emergency procedures before handling.	
IATA	Read salety instructions, SDS a	and emergency procedures before nariding.
UN number	1760	
UN proper shipping name		(LENETRIAMINE PENTAMETHYLENE PHOSPHONIC nydroxide)
Transport hazard class(es)		
Class	8	
Subsidiary risk	-	
Packing group	II	
Environmental hazards	No.	
ERG Code	154	
IMDG	-	and emergency procedures before handling.
UN number UN proper shipping name	1760 CORROSIVE LIQUID, N.O.S. (DIETHYLENETRIAMINE PENTAMETHYLENE PHOSPHONIC ACID,SODIUM SALT, Sodium hydroxide)	
Transport hazard class(es)		.,
Class	8	
Subsidiary risk	-	
Packing group	II	



## SAFETY DATA SHEET GENGARD GN8115

#### **Environmental hazards**

Marine pollutantNo.EmSF-A, S-BSpecial precautions for userRead satTransport in bulk according toNot estalAnnex II of MARPOL 73/78 andthe IBC CodeADGADG

 EmS
 F-A, S-B

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

 nsport in bulk according to
 Not established.

 lex II of MARPOL 73/78 and
 F-A, S-B

# CORROSIVE

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. 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

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.

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## **SAFETY DATA SHEET**

## **GENGARD GN8115**

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) > 1000000 TONNES See the regulation for additional information. Sodium hydroxide (CAS 1310-73-2) Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended) 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 **Stockholm Convention** Not applicable. **Rotterdam Convention** Not applicable. Kyoto protocol Not applicable. Montreal Protocol Not applicable. **Basel Convention** Not applicable. **International Inventories** Country(s) or region On inventory (yes/no)\* Inventory name Australia Australian Inventory of Industrial Chemicals (AICIS) Yes Canada Domestic Substances List (DSL) Yes Canada Non-Domestic Substances List (NDSL) No China Inventory of Existing Chemical Substances in China (IECSC) Yes Europe European Inventory of Existing Commercial Chemical Yes Substances (EINECS)



## SAFETY DATA SHEET GENGARD GN8115

Country(s) or region	Inventory name On inventory (y	es/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates that all comport	nents of this product comply with the inventory requirements administered by the governing country(s)	

\*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 governing country(s).

NSF Registered and/or meets USDA (according to 1998 guidelines):

s	Registration No. – 145782
	Category Code(s):
	G5 Cooling and retort water treatment products
	G7 Boiler, steam line treatment products – nonfood contact

## 16. Other information

Issue date Revision date Key abbreviations or acronyms used	08-February-2021 19/02/2023 AICIS: Australian Inventory of Industrial Chemicals.
References:	No data available
Disclaimer	The 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 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	This document has undergone significant changes and should be reviewed in its entirety.

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