



30/04/2024

SAFETY DATA SHEET

GENGARD GN7300

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

1.1. Product identifier

Trade name or designation of the mixture GENGARD GN7300

Issue date 19/01/2010

Version number 7.6

Revision date 20/05/2023

Supersedes date 13/01/2022

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

Identified uses Corrosion inhibitor

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Veolia Water Technologies & Solutions (UK) Limited
Partnership

Hydro House

Newcombe Way

Orton Southgate

Peterborough

PE2 6SE

Tel.: +44 (0)1733 385444, Fax : 01733 391775

e-mail : emea.productregulatory@veolia.com

1.4. Emergency telephone number

Multilingual emergency number (24/7)

Europe, Middle East, Africa, Israel (Europe and English language speaking countries):

+44(0)1235 239670

Middle East & Africa (speaking Arabic):

+44(0)1235 239671 SUEZWATERTECH29003-NCEC

National Poisons Information Centre

NHS Direct on 111

Or a doctor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Corrosive to metals Category 1 H290 - May be corrosive to metals.

Health hazards

Acute toxicity, oral Category 4 H302 - Harmful if swallowed.

Skin corrosion/irritation Category 1B H314 - Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Category 1 H318 - Causes serious eye damage.

2.2. Label elements



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Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Phosphoric acid

Hazard pictograms



Signal word: Danger

Hazard statements

H290: May be corrosive to metals.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.

Precautionary statements

Prevention

P234: Keep only in original packaging.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 CENTRE/doctor.

Storage: Not available.

Disposal: Not available.

Supplemental label information: None.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical description: Inorganic acid

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Phosphoric acid	70 - < 80	7664-38-2 231-633-2	01-2119485924-24	015-011-00-6	#

Classification: Met. Corr. 1;H290, Acute Tox. 4;H302, Skin Corr. 1B;H314

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. #: This substance has been assigned Union workplace exposure limit(s).

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

4.1. Description of 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 centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.



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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 centre immediately.
Ingestion	Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
4.2. Most important symptoms and effects, both acute and delayed	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.
4.3. Indication of any immediate medical attention and special treatment needed	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 warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. Prevent spillage and fire-fighting water from entering in public sewers or the immediate environment.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours. 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.
6.2. Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
6.3. Methods and material for containment and cleaning up	Prevent entry into waterways, sewer, basements or confined areas. Neutralise with soda ash. 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.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Do not breathe mist/vapours. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Acidic. Do not mix with alkaline material.
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7.2. 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). Store at temperatures below 35°C Do not freeze. If frozen, thaw completely and mix thoroughly prior to use.

7.3. Specific end use(s) Only for industrial users

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Phosphoric acid (CAS 7664-38-2)	STEL	2 mg/m ³
	TWA	1 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

Workers

Components	Value	Assessment factor	Notes
Phosphoric acid (CAS 7664-38-2)			
Long-term, Local, Inhalation	1 mg/m ³		Skin irritation
Long-term, Systemic, Inhalation	10,7 mg/m ³	50	Repeated dose toxicity
Short-term, Local, Inhalation	2 mg/m ³		Skin irritation

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation 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, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.
 CEN : EN 166

Skin protection

- Hand protection

For prolonged or repeated skin contact use suitable protective gloves. Suitable gloves can be recommended by the glove supplier.
 Gauntlet type nitrile gloves (Protection against unintentional short-term contact)
 Penetration time: > 480 min
 Coating thickness: 0,11 mm
 CEN : EN 374-1/2/3/4; EN 420
 Wear appropriate chemical resistant gloves.

- Other

Wear appropriate chemical resistant clothing.
 Use of impervious boots is recommended.
 CEN : EN ISO 13688; EN ISO 6530; EN ISO 6529; EN 14605

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. In case of insufficient ventilation, use a breathing mask with filter type: B2-P2
 CEN : EN 140; EN 14387

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.



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Hygiene measures	Keep away from food and drink. 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.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Physical state	Liquid.
Form	Not available.
Colour	Colourless to light yellow
Odour	Mild
Odour threshold	Not available.
pH (concentrated product)	< 1 Neat
Melting point/freezing point	< -34 °C
Initial boiling point and boiling range	Not available.
Flash point	Not applicable
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	6 mmHg
Vapour pressure temp.	20 °C
Vapour density	> 1
Relative density	1,58
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	19 mPa.s
Viscosity temperature	21 °C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
Percent volatile	25
pH in aqueous solution	1,2 (5% Solution)
Pour point	< -32 °C
Shelf life	720 Days
VOC	0 % Estimated



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SECTION 10: Stability and reactivity

10.1. Reactivity	May be corrosive to metals.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with metals may release flammable hydrogen gas. Protect from freezing.
10.5. Incompatible materials	Avoid contact with steel, aluminium, and zinc. Strong bases. Strong oxidising agents. Metals.
10.6. Hazardous decomposition products	Phosphorus compounds.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely 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. Harmful if swallowed.

Symptoms 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.

11.1. Information on toxicological effects

Acute toxicity Harmful if swallowed.

Product	Species	Test Results
GENGARD GN7300		
Acute		
Dermal		
LD50	Rabbit	3650 mg/kg (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	400 mg/kg (Calculated according to GHS additivity formula)

Components	Species	Test Results
Phosphoric acid (CAS 7664-38-2)		
Acute		
Dermal		
LD50	Rabbit	2740 mg/kg
Oral		
LD50	Rat	300 mg/kg

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory sensitisation	Based on available data, the classification criteria are not met.
Skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.



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Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Mixture versus substance information No information available.

SECTION 12: Ecological information

12.1. Toxicity 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		
Algae	EC50	Scenedesmus (algae) > 100 mg/l, 72 Hours
Crustacea	5% Mortality	Ceriodaphnia 500 mg/l, 48 hour (pH adjusted)
	85% Mortality	Ceriodaphnia 2500 mg/l, 48 hour (pH adjusted)
	LC50	Daphnia magna 3540 mg/l, 48 hour (pH adjusted)
	NOEL	Daphnia magna 2100 mg/l, 48 hour (pH adjusted)
Fish	LC50	Fathead minnow 4200 mg/l, 96 hour (pH adjusted)
	NOEL	Fathead minnow 2100 mg/l, 96 hour (pH adjusted)

12.2. Persistence and degradability

This product, being inorganic, has no TOC, BOD.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. 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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste 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. According to Hazardous Waste Regulations.

European List of Wastes (LoW) code recommendation : 15 01 10
15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.
15 01 Packaging (including separately collected municipal packaging waste).
15 01 10 Packaging containing residues of or contaminated by dangerous substances. Depending on the origin and state of the waste, other codes may be applicable too.

Disposal methods/information 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. According to Hazardous Waste Regulations.

European List of Wastes (LoW) code recommendation : 06 01 04
06 Wastes from inorganic chemical processes.
06 01 Wastes from the manufacture, formulation, supply and use (MFSU) of acids.
06 01 04 Phosphoric and phosphorous acid.
Depending on the origin and state of the waste, other codes may be applicable too.

Special precautions Dispose in accordance with all applicable regulations.



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SECTION 14: Transport information

ADR

- 14.1. UN number or ID number UN1805
- 14.2. UN proper shipping name PHOSPHORIC ACID, SOLUTION
- 14.3. Transport hazard class(es)
- Class 8
 - Subsidiary risk -
 - Tunnel restriction code (E)
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

- 14.1. UN number or ID number UN1805
- 14.2. UN proper shipping name PHOSPHORIC ACID, SOLUTION
- 14.3. Transport hazard class(es)
- Class 8
 - Subsidiary risk -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

- 14.1. UN number or ID number UN1805
- 14.2. UN proper shipping name PHOSPHORIC ACID, SOLUTION
- 14.3. Transport hazard class(es)
- Class 8
 - Subsidiary risk -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

- 14.1. UN number or ID number UN1805
- 14.2. UN proper shipping name PHOSPHORIC ACID, SOLUTION
- 14.3. Transport hazard class(es)
- Class 8
 - Subsidiary risk -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- ERG Code Not available.
- 14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

- 14.1. UN number or ID number UN1805
- 14.2. UN proper shipping name PHOSPHORIC ACID, SOLUTION



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14.3. Transport hazard class(es)

Class 8
Subsidiary risk -

14.4. Packing group III

14.5. Environmental hazards

Marine pollutant No.

EmS F-A, S-B

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

14.7. Maritime transport in bulk according to IMO instruments Not established.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

Retained direct EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Phosphoric acid (CAS 7664-38-2) 75

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended
Not listed.



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Other regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

15.2. Chemical safety assessment No Chemical Safety Assessment has been carried out.

NSF Registered and/or meets USDA (according to 1998 guidelines): Registration No. – 142960
Category Code(s):
G5 Cooling and retort water treatment products
G7 Boiler, steam line treatment products – nonfood contact

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

*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).

SECTION 16: Other information

List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CEN: European Committee for Standardization.
CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
EC50: Effective Concentration 50%.
IATA: International Air Transport Association.
IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
IMDG: International Maritime Dangerous Goods.
LC50: Lethal Concentration 50%.
LD50: Lethal Dose 50%.
MARPOL: International Convention for the Prevention of Pollution from Ships.
NOEL: No observed effect level.
PBT: Persistent, bioaccumulative and toxic.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short term exposure limit.
TOC: Total Organic Carbon.
vPvB: Very persistent and very bioaccumulative.
COD: Chemical Oxygen Demand
EC-No: European Commission Number
BOD: Biochemical oxygen demand.
Safety data sheets of raw materials.

References

Information on evaluation method leading to the classification of mixture The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements, which are not written out in full under sections 2 to 15

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Follow training instructions when handling this material.

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.



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Based on EC Directive / Regulations (EC) No 1907/2006 (REACH)
(EC) No 1272/2008

(EU) No 1357/2014

Further information Correction in Section: 2,3,4,5,6,7,8,9,10,11,12,13,15,16