

# SAFETY DATA SHEET

## FLOGARD MS6201

### 1. Identification

**Product identifier** FLOGARD MS6201  
**Other means of identification** None.  
**Recommended use of the chemical and restrictions on use**  
**Recommended use** Water-based corrosion inhibitor  
**Restrictions on use** Industrial usage.

#### 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 hazardous chemical

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	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.

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### 3. Composition/information on ingredients

#### Mixtures

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Tetrapotassium pyrophosphate	7320-34-5	30- <60
Potassium hydroxide	1310-58-3	<1

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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.
<b>Personal protection for first-aid responders</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
<b>Symptoms caused by exposure</b>	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.
<b>Medical attention and special treatment</b>	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

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for fire fighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Hazchem code</b>	None.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>For emergency responders</b>	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.
<b>Environmental precautions</b>	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. 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
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m3

**UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value
Potassium hydroxide (CAS 1310-58-3)	STEL	2 mg/m3

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

**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, for example personal protective equipment (PPE)

**Eye/face protection** Wear safety glasses with side shields (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.

**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** Not available.

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<b>Color</b>	Colorless to yellow
<b>Odor</b>	Slight
<b>Odor threshold</b>	Not available.
<b>pH (concentrated product)</b>	13 Neat
<b>Melting point/freezing point</b>	< -34 °C
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not Applicable
<b>Evaporation rate</b>	Slower than Ether
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	15 mmHg
<b>Vapor pressure temp.</b>	21 °C
<b>Vapor density</b>	< 1
<b>Relative density</b>	1.73
<b>Relative density temperature</b>	21 °C
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100 %
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	50 mPa.s
<b>Viscosity temperature</b>	21 °C
<b>Other physical and chemical parameters</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>pH in aqueous solution</b>	11.7 (5% Solution)
<b>Pour point</b>	< -34 °C
<b>VOC</b>	0 % CALCULATED

## 10. Stability and reactivity

<b>Reactivity</b>	This product may react with oxidizing agents. May be corrosive to metals.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials. Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Oxidizing agents. Metals.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on possible routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	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
FLOGARD MS6201		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)
<b>Oral</b>		
LD50	Rat	2980 mg/kg (Calculated according to GHS additivity formula)

Components	Species	Test Results
Potassium hydroxide (CAS 1310-58-3)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	333 mg/kg
Tetrapotassium pyrophosphate (CAS 7320-34-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Oral</b>		
LD50	Rat	2440 mg/kg

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

**Serious eye damage/irritation** Causes serious eye damage.

### 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 classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

## 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	
<b>Aquatic</b>			
Crustacea	LC50	Daphnia magna	660 mg/L, 48 H (pH adjusted)
	NOEL	Daphnia magna	268 mg/L, 48 H (pH adjusted)
Fish	0% Mortality	Bluegill Sunfish	500 mg/L, 48 H
	LC50	Fathead Minnow	785 mg/L, 96 H (pH adjusted)
		Rainbow Trout	707.1 mg/L, 96 H (pH adjusted)
	NOEL	Fathead Minnow	423 mg/L, 96 H (pH adjusted)

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Product	Species	Test Results
	Rainbow Trout	500 mg/L, 96 H (pH adjusted)
<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.	
	No data is available on the degradability of any ingredients in the mixture.	
- BOD 28 (mgO2/g)	Not available.	
<b>Bioaccumulative potential</b>	No data available.	
<b>Mobility in soil</b>	No data available for this product.	
<b>Other adverse effects</b>	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 considerations

<b>Disposal methods</b>	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.
<b>Residual waste</b>	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).
<b>Contaminated packaging</b>	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

<b>ADG</b>	
UN number	3266
UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Tetrapotassium pyrophosphate, Potassium hydroxide)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	Not available.
Hazchem code	2X
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
<b>IATA</b>	
UN number	3266
UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s. (POTASSIUM HYDROXIDE, TETRA POTASSIUM PYROPHOSPHATE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
<b>IMDG</b>	
UN number	3266
UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE, TETRA POTASSIUM PYROPHOSPHATE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

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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.

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

Potassium hydroxide (CAS 1310-58-3)

##### Australia Medicines & Poisons Appendix F

Potassium hydroxide (CAS 1310-58-3)

##### 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

Potassium hydroxide (CAS 1310-58-3)

##### 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.



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### Australia Medicines & Poisons Schedule 5

Potassium hydroxide (CAS 1310-58-3)

### Australia Medicines & Poisons Schedule 6

Potassium hydroxide (CAS 1310-58-3)

### 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)

Potassium hydroxide (CAS 1310-58-3)

1000 - 9999 TONNES See the regulation for additional information.

### 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.

### Restricted 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	Inventory name	On inventory (yes/no)*
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 Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
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)	Yes



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<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
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 governing country(s).

<b>NSF Registered and/or meets USDA (according to 1998 guidelines):</b>	Registration No. – 152407 G5 Cooling and retort water treatment products G7 Boiler, steam line treatment products – nonfood contact
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### 16. Other information

<b>Issue date</b>	07-March-2021
<b>Revision date</b>	11/02/2023
<b>Key abbreviations or acronyms used</b>	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** Product and Company Identification: Product Registration Numbers  
 Physical & Chemical Properties: Multiple Properties  
 Physical and chemical properties: Appearance  
 Physical and chemical properties: Form  
 Transport Information: Material Transportation Information  
 Other information: Disclaimer  
 GHS: Classification

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