

# SAFETY DATA SHEET

## OPTISPERSE ADJ5050

### 1. Identification

**Product identifier** OPTISPERSE ADJ5050  
**Other means of identification** None.  
**Recommended use of the chemical and restrictions on use**  
**Recommended use** Water based internal boiler treatment chemical.  
**Restrictions on use** Not available.

#### 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

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Acute toxicity, oral	Category 3
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	Not classified.	

#### Label elements, including precautionary statements

##### Hazard symbol(s)



Skull and crossbones      Corrosion

**Signal word** Danger

**Hazard statement(s)** May be corrosive to metals. Toxic if swallowed. 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. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. 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.

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Supplemental information None.

### 3. Composition/information on ingredients

#### Mixtures

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Sodium hydroxide	1310-73-2	50 - < 60

### 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. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Personal protection for first-aid responders** 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.

**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 warm. 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.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for fire fighters** Not available.

**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.

**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 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.

**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).

### 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 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

##### US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

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

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	STEL	2 mg/m <sup>3</sup>

**Biological limit values** No 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) 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** 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.

### 9. Physical and chemical properties

**Appearance** Liquid

**Physical state** Liquid.

**Form** Liquid.

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<b>Color</b>	Colorless
<b>Odor</b>	Mild
<b>Odor threshold</b>	Not available.
<b>pH in aqueous solution</b>	13.4 (5% SOL.)
<b>Melting point/freezing point</b>	10 °C
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	> 93 °C SETA(CC)
<b>Evaporation rate</b>	< 1 (Ether = 1)
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	18 mm Hg
<b>Vapor pressure temp.</b>	21 °C
<b>Vapor density</b>	< 1 (Air = 1)
<b>Relative density</b>	1.53
<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>	124 cps
<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>	13.4 (5% SOL.)
<b>Pour point</b>	13 °C
<b>Specific gravity</b>	1.53
<b>VOC</b>	0 % (Estimated)

### 10. Stability and reactivity

<b>Reactivity</b>	May be corrosive to metals.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Not available.
<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong acids. Strong oxidizing agents. Metals.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

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### 11. Toxicological information

#### Information on possible routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	Toxic if swallowed. Causes digestive tract burns.

**Symptoms related to exposure** Severe eye irritation.

**Acute toxicity** Toxic if swallowed.

Product	Species	Test Results
OPTISPERSE ADJ5050 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2700 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	1000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Sodium hydroxide (CAS 1310-73-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	1350 mg/kg
<i>Oral</i>		
LD50	Rabbit	> 500 mg/kg

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**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 available.

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

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

### 12. Ecological information

#### Ecotoxicity

Product	Species	Test Results
OPTISPERSE ADJ5050 (CAS Mixture)		
<b>Aquatic</b>		
Crustacea	10% Mortality Ceriodaphnia	1785 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
	100% Mortality Daphnia magna	500 mg/L, Static Screen, 48 hour

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Product		Species	Test Results
	5% Mortality	Daphnia magna	5000 mg/L, Static Screen, 48 hour, (pH adjusted) 100 mg/L, Static Screen, 48 hour
	LC50	Ceriodaphnia	2480 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
Fish	0% Mortality	Fathead Minnow	5000 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour, (pH adjusted) 50 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour
		Rainbow Trout	10000 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour, (pH adjusted)
	100% Mortality	Fathead Minnow	200 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour
	45% Mortality	Fathead Minnow	10000 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour, (pH adjusted)

**Bioaccumulative potential** No data available.

**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.

### 13. Disposal considerations

**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.

**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** 1824  
**UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards** Not available.  
**Hazchem code** 2R  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IATA

**UN number** 1824  
**UN proper shipping name** Sodium hydroxide solution  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Environmental hazards** No.  
**ERG Code** 154  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

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### IMDG

<b>UN number</b>	1824
<b>UN proper shipping name</b>	SODIUM HYDROXIDE SOLUTION
<b>Transport hazard class(es)</b>	
<b>Class</b>	8
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-A, S-B
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>RQ</b>	

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

### 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 - Water Treatment Chemicals (Corrosive) - HSR002681

#### 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.



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**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 Depleting 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.

**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.



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### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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
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. – 140698
	Category Code(s):
	G1 Water Treatment Products – General
	G5 Cooling and retort water treatment products G6 Boiler treatment products, steam line products – food contact

### 16. Other information

<b>Issue date</b>	17-January-2021
<b>Revision date</b>	11/06/2021
<b>References:</b>	No data available
<b>Revision information</b>	Hazard(s) identification: GHS Hazard Statements Physical & Chemical Properties: Multiple Properties Disposal considerations: Contaminated packaging Disposal considerations: Disposal methods GHS: Classification

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