Version: 2.2

Effective Date: May-27-2018 Previous Date: Dec-17-2017



SAFETY DATA SHEET CORTROL* IS100

1. Identification

Product identifier CORTROL IS100

Other means of identification None.

Recommended use Oxygen scavenger None known. **Recommended restrictions**

Company/undertaking identification

SUEZ WTS USA, Inc. 4636 Somerton Road Trevose, PA 19053

T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Not classified. **Physical hazards**

Health hazards Serious eye damage/eye irritation Category 2B

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Causes eye irritation. May cause respiratory irritation. **Hazard statement**

Precautionary statement

Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a Prevention

well-ventilated area.

If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse Response

cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor// if you feel unwell. If eye irritation persists: Get

medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Storage

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

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

CENTER or doctor/physician if you feel unwell.

Skin contact

Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact

Rinse immediately with plenty of water for at least 20 minutes Remove contact lenses, if present

and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

Most important symptoms/effects, acute and

delayed

Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

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

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

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

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. 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.

Methods and materials for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. 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.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling

Avoid breathing mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Biological limit values

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

Page: 2 / 7 Material name: CORTROL* IS100

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material

but also on other quality features and is different from one producer to the other. Glove selection

must take into account any solvents and other hazards present.

Other Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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

Color white to tan
Physical state Powder
Odor Odorless
Odor threshold Not available.
pH in aqueous solution 10 (5% Solution)
Melting point/freezing point Not available.
Initial boiling point and boiling Not available.

range

Flash point > 199 °F (> 93 °C) SETA(CC)

Evaporation rate Slower than Ether Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure < 0.1 mmHg

Vapor pressure temp. 70 °F (21 °C)

Vapor density < 1

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

VOC 0 % ESTIMATED

Material name: CORTROL* IS100 Page: 3 / 7

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous Hazardous polymerization does not occur.

reactions

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials. None under

normal conditions.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

Oxides of sulfur.

11. Toxicological information

Information on likely routes of exposure

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

Skin contact No adverse effects due to skin contact are expected.

Eye contact Causes eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

May cause respiratory irritation. Exposed individuals may experience eye tearing, redness, and

discomfort.

Information on toxicological effects

Acute toxicity May cause respiratory irritation.

Product	Species	Test Results
CORTROL IS100 (CAS Mi	xture)	
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, (Calculated according to GHS additivity formula)
Inhalation		
LC50	Rat	> 5.5 mg/l, 4 Hours, (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	2690 mg/kg, (Calculated according to GHS additivity formula)

^{*} Estimates for product may be based on additional component data not shown.

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

Serious eye damage/eye

irritation

Causes eye irritation.

Respiratory or skin sensitization

Respiratory sensitizationThis product is not expected to cause respiratory sensitization. **Skin sensitization**This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Material name: CORTROL* IS100 Page: 4 / 7

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

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

Chronic effects Prolonged inhalation may be harmful.

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
CORTROL IS100 (CAS Mix	ture)		
Aquatic			
Crustacea	LC50	Daphnia magna	203 mg/L, Static Acute Bioassay, 48 hour
	NOEL	Daphnia magna	32 mg/L, Static Acute Bioassay, 48 hour
Fish	LC50	Rainbow Trout	58 mg/L, Static Acute Bioassay, 96 hour
	NOEL	Rainbow Trout	32 mg/L, Static Acute Bioassay, 96 hour
Bioaccumulative potential	No data available.		
Mobility in soil	No data available.		
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 this product.		
- COD (mgO2/g)	109		

13. Disposal considerations

Disposal instructions

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.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

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

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

Material name: CORTROL* IS100 Page: 5 / 7

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

Inventory status

Country(s) or regionInventory nameOn inventory (yes/no)*CanadaDomestic Substances List (DSL)Yes

Canada Non-Domestic Substances List (NDSL) 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 governing country(s).

Food and drug administration

ALL ingredients in this product are authorized in 21CFR173.310 for use as boiler water additives

where the steam may contact food.

US state regulations

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Nickel sulphate (CAS 7786-81-4) Listed: May 7, 2004

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

US - Massachusetts RTK - Substance List

Not regulated.

US - Pennsylvania RTK - Hazardous Substances

Not regulated.

US - Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

16. Other information, including date of preparation or last revision

Issue date Dec-17-2014
Revision date May-27-2018

Version # 2.2

Material name: CORTROL* IS100 Page: 6 / 7

List of abbreviations CAS: Chemical Abstract Service Registration Number

TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

ACGIH: American Conference of Governmental Industrial Hygienists

NOEL: No Observed Effect Level STEL: Short Term Exposure Limit LC50: Lethal Concentration, 50% TWA: Time Weighted Average BOD: Biochemical Oxygen Demand COD: Chemical Oxygen Demand TOC: Total Organic Carbon

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

LD50: Lethal Dose, 50%

NFPA: National Fire Protection Association

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.

Prepared byThis SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.

Material name: CORTROL* IS100

Version number: 2.2

Page: 7 / 7