



# SAFETY DATA SHEET

## METCLEAR\* MR2431

### 1. Identification

**Product identifier** METCLEAR MR2431  
**Other means of identification** None.  
**Recommended use** Waste water treatment aid.  
**Recommended restrictions** None known.

#### 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

**Physical hazards** Not classified.  
**Health hazards** Sensitization, skin Category 1  
Carcinogenicity Category 1A  
**OSHA defined hazards** Not classified.

#### Label elements



**Signal word** Danger  
**Hazard statement** May cause cancer. May cause an allergic skin reaction.

#### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If on skin: Wash with plenty of water. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Storage** Store locked up.

**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

Components	CAS #	Percent
Formaldehyde	50-00-0	0.1 - 1

**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** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

**Eye contact** Rinse with water. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed** Dermatitis. Rash. May cause an allergic skin reaction.

**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** IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 5. Fire-fighting measures

**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 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.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**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.

**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. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. 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.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist or vapor. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Protect from freezing. Do not store at elevated temperatures. Store locked up. Store in original tightly closed container.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Formaldehyde (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Formaldehyde (CAS 50-00-0)	STEL	0.3 ppm
	TWA	0.1 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Formaldehyde (CAS 50-00-0)	Ceiling	0.1 ppm
	TWA	0.016 ppm

### 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.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Splash proof chemical 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 appropriate chemical resistant 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. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

**Color** Dark brown

**Physical state** Liquid

**Odor** Slight

**Odor threshold** Not available.

**pH (concentrated product)** 2.6

**pH in aqueous solution** 3 (5% SOL.)

**Melting point/freezing point** 18 °F (-8 °C)

**Initial boiling point and boiling range** 220 °F (104 °C)

**Flash point** > 200 °F (> 93 °C) P-M(CC)

**Evaporation rate** < 1 (Ether = 1)

**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	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.17
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	131 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Pour point	23 °F (-5 °C)
Specific gravity	1.167
VOC	0 % (Estimated)

## 10. Stability and reactivity

Reactivity	The 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 reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid contact with strong bases. Avoid contact with strong oxidizers.
Incompatible materials	Avoid contact with strong bases. Avoid contact with strong oxidizers. Contact with strong bases may cause a violent reaction releasing heat.
Hazardous decomposition products	Hydrogen chloride, oxides of carbon and nitrogen evolved in fire.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. Mists/aerosols may cause irritation to upper respiratory tract.
Skin contact	May cause an allergic skin reaction. Prolonged or repeated contact may cause irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause slight gastrointestinal irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**      Dermatitis. Rash. May cause an allergic skin reaction.

### Information on toxicological effects

**Acute toxicity**      May cause an allergic skin reaction.

Product	Species	Test Results
METCLEAR MR2431 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.5 mg/l, 4 Hours

Product	Species	Test Results
<i>Oral</i> LD50	Rat	> 5000 mg/kg
Components	Species	Test Results
Formaldehyde (CAS 50-00-0)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	270 mg/kg
<i>Inhalation</i> LC50	Rat	0.15 mg/L, 4 Hour
<i>Oral</i> LD50	Rat	500 mg/kg

\* 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** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**ACGIH sensitization**

FORMALDEHYDE (CAS 50-00-0)

Dermal sensitization  
Respiratory sensitization

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

**Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** May cause cancer.

**ACGIH Carcinogens**

Formaldehyde (CAS 50-00-0)

A1 Confirmed human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Formaldehyde (CAS 50-00-0)

1 Carcinogenic to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Formaldehyde (CAS 50-00-0)

Cancer

**US. National Toxicology Program (NTP) Report on Carcinogens**

Formaldehyde (CAS 50-00-0)

Known To Be Human Carcinogen.

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

**Chronic effects** Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**12. Ecological information**

**Ecotoxicity**

Product	Species	Test Results
METCLEAR MR2431 (CAS Mixture)		
LC50	Ceriodaphnia	15.5 mg/L, Static Acute Bioassay, 48 hour
	Fathead Minnow	80 mg/L, Static Renewal Bioassay, 96 hour
	Menidia beryllina (Silversides)	658 mg/L, Static Acute Bioassay, 96 hour
	Mysid Shrimp	319 mg/L, Static Acute Bioassay, 48 hour

Product		Species	Test Results
	NOEL	Ceriodaphnia	11.5 mg/L, Static Acute Bioassay, 48 hour
		Fathead Minnow	31.3 mg/L, Static Renewal Bioassay, 96 hour
		Menidia beryllina (Silversides)	5 mg/L, Static Acute Bioassay, 96 hour
		Mysid Shrimp	62.5 mg/L, Static Acute Bioassay, 48 hour
<b>Aquatic</b>			
Crustacea	0% Mortality	Daphnia magna	15.6 mg/L, Static Renewal Bioassay, 48 hour
	LC50	Daphnia magna	73 mg/L, Static Renewal Bioassay, 48 hour
Fish	LC50	Rainbow Trout	14 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Rainbow Trout	6.3 mg/L, Static Renewal Bioassay, 96 hour

**Persistence and degradability** Testing has shown product not to be readily biodegradable.

**Bioaccumulative potential** No data available.

**Partition coefficient n-octanol / water (log Kow)**

Formaldehyde 0.35

**Mobility in soil** No data available.

**Other adverse effects** Not available.

**Persistence and degradability**

- COD (mgO2/g) 480
- BOD 5 (mgO2/g) 85
- BOD 28 (mgO2/g) 275
- Closed Bottle Test (% Degradation in 28 days) 57
- TOC (mg C/g) 190

**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.

**Local disposal regulations** Dispose in accordance with all applicable 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).  
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

**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**

**DOT**

- UN number** UN3082
- UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s. (FORMALDEHYDE), RQ(FORMALDEHYDE)
- Transport hazard class(es)**
- Class** 9
- Subsidiary risk** -
- Packing group** III
- Special precautions for user** Not available.

**ERG number** 171

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.

**DOT**



**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)**

Formaldehyde (CAS 50-00-0) Listed.

**SARA 304 Emergency release notification**

Formaldehyde (CAS 50-00-0) 100 LBS

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Formaldehyde (CAS 50-00-0) Cancer  
Skin sensitization  
Respiratory sensitization  
Eye irritation  
Skin irritation  
respiratory tract irritation  
Acute toxicity  
Flammability

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Formaldehyde	50-00-0	100	500		

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Formaldehyde	50-00-0	0.1 - 1

**Other federal regulations**

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

Formaldehyde (CAS 50-00-0)

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

Formaldehyde (CAS 50-00-0)

**Safe Drinking Water Act (SDWA)** Not regulated.

## Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic 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).

## US state regulations

### US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

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

Formaldehyde (CAS 50-00-0) Listed: January 1, 1988

#### 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.

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

Issue date	Sep-21-2018
Revision date	Mar-18-2019
Version #	2.0
NFPA ratings	Health: 2 Flammability: 0 Instability: 0

### NFPA ratings



### List of abbreviations

CAS: Chemical Abstract Service Registration Number  
ACGIH: American Conference of Governmental Industrial Hygienists  
TWA: Time Weighted Average  
STEL: Short Term Exposure Limit  
LD50: Lethal Dose, 50%  
LC50: Lethal Concentration, 50%  
NOEL: No Observed Effect Level  
COD: Chemical Oxygen Demand  
BOD: Biochemical Oxygen Demand  
TOC: Total Organic Carbon  
IATA: International Air Transport Association  
IMDG: International Maritime Dangerous Goods Code  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

**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** Hazard(s) identification: Prevention  
First-aid measures: Inhalation  
Accidental release measures: Personal precautions, protective equipment and emergency procedures  
Handling and storage: Conditions for safe storage, including any incompatibilities  
Physical & Chemical Properties: Multiple Properties  
Stability and reactivity: Conditions to avoid  
GHS: Classification

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



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