



# SAFETY DATA SHEET

## E.C.O.FILM\* EF2582

### 1. Identification

**Product identifier** E.C.O.FILM EF2582  
**Other means of identification** None.  
**Recommended use** Corrosion inhibitor  
**Recommended restrictions** None known.

#### Company/undertaking identification

Veolia WTS USA, Inc.  
3600 Horizon Blvd.  
Trevose, PA 19053  
T 215 355 3300, F 215 953 5524

#### Emergency telephone

(800) 877 1940

### 2. Hazard(s) identification

<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
	Sensitization, skin	Category 1A
<b>OSHA defined hazards</b>	Not classified.	

#### Label elements



**Signal word** Danger

**Hazard statement** May be corrosive to metals. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage.

#### Precautionary statement

**Prevention** Contaminated work clothing must not be allowed out of the workplace. Keep only in original container. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection.

**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. 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. Absorb spillage to prevent material damage. If skin irritation or rash occurs: Get medical advice or attention.

**Storage** Store locked up. Store in corrosive resistant container with a resistant inner liner.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

### 3. Composition/information on ingredients

#### Mixtures

Components	CAS #	Percent
Chlorotolyltriazole sodium salt	202420-04-0	1 - 2.5
Sodium hydroxide	1310-73-2	<1
Inorganic salt	TSRN 125438 - 5027P	
Organic Acid	TSRN 125438 - 5379P	

**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** 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. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**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 center immediately.

**Ingestion** 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.

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

**Indication of 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 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** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**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.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** 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.

**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.

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

## 7. Handling and storage

**Precautions for safe handling** 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/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Inorganic salt	TWA	1 mg/m3	Respirable fraction.
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3	

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

Components	Type	Value
Inorganic salt	TWA	2 mg/m3
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

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

**Appropriate engineering controls** Provide adequate ventilation. Eye wash facilities and emergency shower must be available when handling this product.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

#### Skin protection

##### Hand protection

Wear appropriate 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.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.34 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** Liquid

**Physical state** Liquid.

**Form** Not available.

**Color** Dark amber

**Odor** Characteristic

**Odor threshold** Not available.

**pH (concentrated product)** 13.5 Neat

**Melting point/freezing point** 32 °F (0 °C)

**Initial boiling point and boiling range** 212 °F (100 °C)

**Flash point** Not Applicable

**Evaporation rate** Slower than Ether

Material name: E.C.O.FILM\* EF2582

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<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>	18 mmHg
<b>Vapor pressure temp.</b>	70 °F (21 °C)
<b>Vapor density</b>	< 1
<b>Relative density</b>	1.33
<b>Relative density temperature</b>	70 °F (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>	28 mPa.s
<b>Viscosity temperature</b>	77 °F (25 °C)
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>pH in aqueous solution</b>	12.1 (5% Solution)
<b>Pour point</b>	37 °F (3 °C)
<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>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials. Do not mix with other chemicals.
<b>Incompatible materials</b>	Strong oxidizing agents. Metals.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

**Symptoms related to the physical, chemical and toxicological characteristics** Immediate effects: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Delayed effects: Permanent eye damage including blindness could result. May cause an allergic skin reaction.

### Information on toxicological effects

**Acute toxicity** Not classified.

Product	Species	Test Results
E.C.O.FILM EF2582		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)

Product	Species	Test Results
<b>Inhalation</b> <i>Vapor</i>		
LC50	Rat	> 20 mg/l, 4 Hour (Calculated according to GHS additivity formula)
<b>Oral</b>		
LD50	Rat	> 5000 mg/kg (Calculated according to GHS additivity formula)
Components	Species	Test Results
Chlorotolyltriazole sodium salt (CAS 202420-04-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 5000 mg/kg
<b>Oral</b>		
LD50	Rat	3100 mg/kg
Inorganic salt		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	> 1 mg/l, 4 Hour
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg
Organic Acid		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1560 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 2.88 mg/L, 4 Hour
<b>Oral</b>		
LD50	Rat	708 mg/kg
Sodium hydroxide (CAS 1310-73-2)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	1350 mg/kg
<b>Oral</b>		
LD50	Rabbit	> 500 mg/kg
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not classified.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	Not classified.	
<b>Carcinogenicity</b>	Not classified.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
Not listed.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	Not classified.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	

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

**Aspiration hazard** Not classified.

## 12. Ecological information

### Ecotoxicity

Product	Species	Test Results
<b>Aquatic</b>		
Crustacea	LC50 Daphnia magna	530 mg/L, 48 H (Estimated/pH adjusted)
Fish	LC50 Fathead Minnow	547 mg/L, 96 H (Estimated/pH adjusted)

**Persistence and degradability** 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.

- COD (mgO<sub>2</sub>/g) 290
- BOD 5 (mgO<sub>2</sub>/g) 189 (calculated data)
- BOD 28 (mgO<sub>2</sub>/g) 232 (calculated data)

### Bioaccumulative potential

**Partition coefficient n-octanol / water (log Kow)**  
Organic Acid -0.48

**Mobility in soil** No data available.

**Other adverse effects** Not available.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. 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** D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel]  
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** 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** UN3266  
**UN proper shipping name** Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Inorganic Salt)  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**ERG number** 154

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

### IATA

**UN number** UN3266  
**UN proper shipping name** Corrosive liquid, basic, inorganic, n.o.s. (Sodium hydroxide, Inorganic Salt)  
**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.

**IMDG**

**UN number** UN3266  
**UN proper shipping name** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE, Inorganic Salt)  
**Transport hazard class(es)**  
    **Class** 8  
    **Subsidiary risk** -  
**Packing group** II  
**Environmental hazards**  
    **Marine pollutant** No.  
**EmS** F-A, S-B  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**DOT**



**IATA; IMDG**



**15. Regulatory information**

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

**Toxic Substances Control Act (TSCA)**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Organic Acid (CAS TSNR 125438 - 5379P) Listed.  
Sodium hydroxide (CAS 1310-73-2) Listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

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

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Corrosive to metal  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization

**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 (SDWA)** Contains component(s) regulated under the Safe Drinking Water Act.

**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	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).

**US state regulations**

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Sodium hydroxide (CAS 1310-73-2)

**California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

No ingredient listed.

**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**

<b>Issue date</b>	Jan-11-2019
<b>Revision date</b>	Feb-21-2023
<b>Version #</b>	3.1
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 0

**NFPA ratings**





<b>List of abbreviations</b>	<p>ACGIH: American Conference of Governmental Industrial Hygienists          BOD: Biochemical Oxygen Demand          CAS: Chemical Abstract Service Registration Number          COD: Chemical Oxygen Demand          DOT: Department of Transportation (49 CFR 172.101).          GHS: Globally Harmonized System of Classification and Labeling of Chemicals.          IARC: International Agency for Research on Cancer.          IATA: International Air Transport Association          IMDG: International Maritime Dangerous Goods Code          LC50: Lethal Concentration, 50%          LD50: Lethal Dose, 50%          NOEL: No Observed Effect Level          OSHA: Occupational Safety &amp; Health Administration.          STEL: Short Term Exposure Limit          TOC: Total Organic Carbon          TWA: Time Weighted Average          WHMIS: Workplace Hazardous Materials Information System.</p>
<b>References:</b>	No data available
<b>Disclaimer</b>	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.
<b>Revision information</b>	<p>Hazard(s) identification: Disposal          Hazard(s) identification: Prevention          Hazard(s) identification: Response          Composition / Information on Ingredients: Ingredients          Exposure controls/personal protection: Appropriate engineering controls          Exposure controls/personal protection: Respiratory protection          Physical &amp; Chemical Properties: Multiple Properties          Stability and reactivity: Incompatible materials          Stability and reactivity: Reactivity          Toxicological information: Inhalation          Ecological information: - BOD 28 (mgO2/g)          Ecological information: - BOD 5 (mgO2/g)          Ecological information: - COD (mgO2/g)          Other information, including date of preparation or last revision: Prepared by</p>
<b>Prepared by</b>	This SDS has been prepared by Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).

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