# SAFETY DATA SHEET
# E.C.O.FILM* EF2605

## 1. Identification

**Product identifier** **E.C.O.FILM EF2605**

**Other means of identification** None.

**Recommended use** Corrosion inhibitor

**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** | Corrosive to metals | Category 1 |
| **Health hazards** | Skin corrosion/irritation | Category 2 |
| | Serious eye damage/eye irritation | Category 1 |

**OSHA defined hazards** Not classified.

**Label elements**

**Signal word** Danger

**Hazard statement** May be corrosive to metals. Causes skin irritation. Causes serious eye damage.

**Precautionary statement**

**Prevention** Keep only in original container. Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.

**Response** If on skin: Wash with plenty of water. 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/doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Absorb spillage to prevent material damage.

**Storage** 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 |
|---|---|---|
| Inorganic Salt | TSRN 125438 - 12059 | |
| Organic Acid Polymer | TSRN 125438 - 12058 | |

**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** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin contact** Remove contaminated clothing. Rinse skin with water/shower. If skin irritation 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. Get medical attention immediately.

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

**Most important symptoms/effects, acute and delayed** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.

**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** 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. 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 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. 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.

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

## 7. Handling and storage

**Precautions for safe handling** Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. 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 in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in original tightly closed container. Keep only in the original container. Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

| Components | Type | Value | Form |
|---|---|---|---|
| Inorganic Salt (CAS TSRN 125438 - 12059) | TWA | 1 mg/m3 | Respirable fraction. |

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

| Components | Type | Value |
|---|---|---|
| Inorganic Salt (CAS TSRN 125438 - 12059) | TWA | 2 mg/m3 |

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

**Appropriate engineering controls** Eye wash fountain and emergency showers are recommended. 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** 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** 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 1910.34 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**

**Color** Yellow

**Physical state** Liquid

**Odor** Mild

**Odor threshold** Not available.

**Melting point/freezing point** 28 °F (-2 °C)

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

**Flash point** Not Applicable

**Evaporation rate** Slower than Ether

**Flammability (solid, gas)** Not applicable.

**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 mmHg

**Vapor pressure temp.** 70 °F (21 °C)

**Vapor density** < 1

**Relative density** 0.89

| | |
|---|---|
| **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** | 16 mPa.s |
| **Viscosity temperature** | 70 °F (21 °C) |
| **Other information** | |
| **Explosive properties** | Not explosive. |
| **Oxidizing properties** | Not oxidizing. |
| **Pour point** | 34 °F (1 °C) |
| **Specific gravity** | 0.889 |
| **VOC** | 0 % ESTIMATED |
| **pH (concentrated product)** | 1.6 Neat |
| **pH in aqueous solution** | 2.6 (5% Solution) |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | May be corrosive to metals. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | Hazardous polymerization does not occur. |
| **Conditions to avoid** | Contact with incompatible materials. None under normal conditions. |
| **Incompatible materials** | Strong oxidizing agents. Metals. |
| **Hazardous decomposition products** | No hazardous decomposition products are known. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | Prolonged inhalation may be harmful. |
| **Skin contact** | Causes skin irritation. |
| **Eye contact** | Causes serious eye damage. |
| **Ingestion** | Expected to be a low ingestion hazard. |
| **Symptoms related to the physical, chemical and toxicological characteristics** | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. |

**Information on toxicological effects**

**Acute toxicity** Not known.

| Product | Species | Test Results |
|---|---|---|
| E.C.O.FILM EF2605 (CAS Mixture) | | |
| **Acute** | | |
| *Dermal* | | |
| LD50 | Rabbit | > 5000 mg/kg, (Calculated according to GHS additivity formula) |
| *Inhalation* | | |
| LC50 | Rat | > 5 mg/l, 4 hours, (Calculated according to GHS additivity formula) |
| *Oral* | | |
| LD50 | Rat | > 5000 mg/kg, (Calculated according to GHS additivity formula) |

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

**Skin corrosion/irritation** Causes skin irritation.

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

**Respiratory or skin sensitization**

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

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

**ACGIH Carcinogens**

Inorganic Salt (CAS TSRN 125438 - 12059) A4 Not classifiable as a human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

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

Not regulated.

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

Not listed.

**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.

## 12. Ecological information

**Ecotoxicity**

| Product | | Species | Test Results |
|---|---|---|---|
| E.C.O.FILM EF2605 (CAS Mixture) | | | |
| **Aquatic** | | | |
| Crustacea | 100% Mortality | Mysid Shrimp | 1250 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted) |
| | LC50 | Daphnia magna | > 10000 mg/L, Static Renewal Bioassay, 48 H, (pH adjusted) |
| | | Mysid Shrimp | 4657.9 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted) |
| | NOEL | Daphnia magna | 10000 mg/L, Static Renewal Bioassay, 48 H, (pH adjusted) |
| Fish | LC50 | Fathead Minnow | 9766.8 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted) |
| | | Rainbow Trout | > 10000 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted) |
| | NOEL | Fathead Minnow | 5000 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted) |
| | | Rainbow Trout | 10000 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted) |

**Bioaccumulative potential**

**Mobility in soil** No data available.

**Other adverse effects** Not available.

**Persistence and degradability**

**- COD (mgO2/g)** 37

## 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]<br>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** | UN1760 |
| **UN proper shipping name** | Corrosive liquids, n.o.s. (Organic Acid Polymer, Salt), RQ(Salt) |
| **Transport hazard class(es)** | |
| **Class** | 8 |
| **Subsidiary risk** | - |
| **Packing group** | III |
| **Special precautions for user** | Not available. |
| **ERG number** | 154 |

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

**IATA**

| | |
|---|---|
| **UN number** | UN1760 |
| **UN proper shipping name** | Corrosive liquid, n.o.s. (Organic Acid Polymer, Salt) |
| **Transport hazard class(es)** | |
| **Class** | 8 |
| **Subsidiary risk** | - |
| **Packing group** | III |
| **Environmental hazards** | No. |
| **ERG Code** | 154 |
| **Special precautions for user** | Not available. |

**IMDG**

| | |
|---|---|
| **UN number** | UN1760 |
| **UN proper shipping name** | CORROSIVE LIQUID, N.O.S. (Organic Acid Polymer, Inorganic Salt), RQ(Inorganic Salt) |
| **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** | Not available. |

**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.

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

Not regulated.

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

Inorganic Salt (CAS TSRN 125438 - 12059) Listed.

**SARA 304 Emergency release notification**

Not regulated.

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

Not regulated.

**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

**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)** 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**

**California Proposition 65**

**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

| | |
|---|---|
| **Issue date** | Dec-02-2020 |
| **Revision date** | Dec-02-2020 |
| **Version #** | 1.0 |
| **NFPA ratings** | Health: 3<br>Flammability: 0<br>Instability: 0 |
| **NFPA ratings** |  |
| **List of abbreviations** | ACGIH: American Conference of Governmental Industrial Hygienists<br>BOD: Biochemical Oxygen Demand<br>CAS: Chemical Abstract Service Registration Number<br>COD: Chemical Oxygen Demand<br>DOT: Department of Transportation (49 CFR 172.101).<br>GHS: Globally Harmonized System of Classification and Labeling of Chemicals.<br>IARC: International Agency for Research on Cancer.<br>IATA: International Air Transport Association<br>IMDG: International Maritime Dangerous Goods Code<br>LC50: Lethal Concentration, 50%<br>LD50: Lethal Dose, 50%<br>NOEL: No Observed Effect Level<br>OSHA: Occupational Safety & Health Administration.<br>STEL: Short Term Exposure Limit<br>TOC: Total Organic Carbon<br>TWA: Time Weighted Average<br>WHMIS: Workplace Hazardous Materials Information System. |
| **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: Commercial Names<br>Exposure controls/personal protection: Respiratory protection |
| **Prepared by** | This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300). |

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