

## Material Safety Data Sheet

### ECOTEC RO 3010

#### 1. PRODUCT IDENTIFICATION

**TRADE NAME (AS LABELED):** Ecotec RO 3010  
**PRODUCT USE:** Water Treatment (RO Antiscalant)  
**SUPPLIER/MANUFACTURER'S NAME:** "Ecosoft" SPC LTD  
**ADDRESS:** 1i Pokrovska st., Irpin, Ukraine 08200  
**BUSINESS PHONES:** (044) 490 34 54, (044) 490 67 86  
**DATE OF PREPARATION:** Revised 10/17/2019

This product is sold for commercial use. This MSDS has been developed to address safety concerns of those individuals working with bulk quantities of this material, as well as those of potential users of this product in industrial/occupational settings. All pertinent health, safety and environmental information has been presented based on ANSI Z400.1-2003, the US Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canadian Workplace Hazardous Materials Information System (WHMIS) and Controlled Products Regulations (CPR).

#### 2. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

##### PHYSICAL DESCRIPTION:

This product is a clear, colorless or light yellowish, solution with a light specific odor. This product is neither reactive nor flammable.

##### WARNINGS (per ANSI Z129.1):

WARNING! MAY CAUSE SKIN AND EYE IRRITATION. MAY BE IF INHALED. HARMFUL IF SWALLOWED.

##### PRECAUTIONS (per ANSI Z129.1):

Do not taste or swallow. Do not get on skin or in eyes. Avoid breathing mists or sprays. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Wear gloves, goggles, and suitable body protection if necessary.

##### HAZARD SYMBOLS:

HMIS HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	B

HMIS PERSONAL PROTECTIVE EQUIPMENT RATING: Industrial Use situations B; Safety glasses and gloves.

##### OSHA REGULATORY STATUS:

This material is classified as not hazardous under OSHA regulations.

##### POTENTIAL HEALTH EFFECTS:

The most significant routes of occupational overexposure are inhalation and contact with skin and eyes. The symptoms of overexposure to this product are as follows:

##### CONTACT WITH SKIN or

Contact can cause eye or skin irritation. Prolonged skin contact can result in dermatitis. Prolonged eye exposure may include redness, pain, and tearing.

##### EYES:

##### SKIN ABSORPTION:

No component of this product is reported to be absorbed through intact skin.

##### INGESTION:

If the product is swallowed, irritation of the mouth, throat, and other tissues of the gastro-intestinal system can occur.



**INHALATION:** Overexposure to vapors, mists, sprays, or dusts of this product can cause irritation to the respiratory tract.

**INJECTION:** Accidental injection of this product can cause burning, reddening, and swelling in addition to the wound. Symptoms of such exposure can include those described under "Inhalation", "Contact with Skin or Eyes," and "Ingestion".

**CHRONIC EFFECTS:** Long-term skin or eye contact can result in dermatitis or eye irritation.

**SIGNS AND SYMPTOMS OF OVER EXPOSURE** Eye and skin irritation (redness or swelling).

**POTENTIAL ENVIRONMENTAL EFFECTS**

This product does not normally present a significant hazard to aquatic or terrestrial life in small quantities. Do not discharge effluent containing this product into streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

**3. MATERIAL IDENTIFICATION**

CHEMICAL NAME	CAS #	% w/w
Acrylic/methacrylic acid polymer/copolymer	Proprietary	5–15
Sulphonic/carboxylic terpolymer	Proprietary	10–20
Phosphonic acid derivative	Proprietary	8–12
pH adjusting agent	Proprietary	1–5
Water and ingredients present in concentrations of less than 1%	—	Balance
The ingredients in the balance of this product do not contribute significant hazards beyond those described in this document.		

**4. FIRST-AID MEASURES**

Victims of chemical exposure must be taken for medical attention if any adverse effects occur. Take a copy of label and MSDS to physician or health professional with victim.

**FIRST AID PROCEDURES**

**SKIN EXPOSURE** If this product contaminates the skin, immediately begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Victim must seek immediate medical attention if any adverse exposure symptoms develop

**EYE EXPOSURE** If this product enters the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victim must seek medical attention if any adverse exposure symptoms develop

**INHALATION** Victim must seek immediate medical attention if any adverse exposure symptoms develop. If necessary, use artificial respiration to support vital functions

**INGESTION** If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING, unless directed by medical personnel. Have victim rinse mouth with water, if conscious. Never induce vomiting or give a diluent (e.g., water) to someone who is unconscious, having convulsions, or unable to swallow. If contaminated individual is convulsing, maintain an open airway and obtain immediate medical attention.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE** Preexisting dermatitis, other skin conditions, and respiratory conditions may be aggravated by exposures to this product.

## 5. FIRE-FIGHTING MEASURES

### FLAMMABLE PROPERTIES

This product is non-combustible. However, the dried residue may burn. Not sensitive to mechanical impact under normal conditions. Not sensitive to static discharge under normal conditions.

### EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA:

Water Spray: OK                      Carbon Dioxide: OK  
Foam: OK                                Dry Chemical: OK  
Halon: OK                                Other Any "ABC" Class

UNSUITABLE EXTINGUISHING MEDIA: None.

### PROTECTION OF FIREFIGHTERS

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:

When involved in a fire, this product may decompose and produce irritating fumes and toxic gases (e.g., carbon monoxide, carbon dioxide, and sodium oxide).

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Responders should wear the level of protection appropriate to the type of chemical released, the volume of the material spilled, and the location where the incident has occurred.

### ENVIRONMENTAL PRECAUTIONS

Minimize use of water to prevent environmental contamination. Prevent spill or rinse from contamination of storm drains, sewers, soil or groundwater. Place all spill residues in a suitable container and seal. Dispose of in accordance with applicable U.S. Federal, State, or local procedures or appropriate standards of Canada (see Section 13, Disposal Considerations).

### METHODS FOR CONTAINMENT

SPILL AND LEAK RESPONSE: Trained personnel using pre-planned procedures should respond to uncontrolled releases. Proper protective equipment should be used. In case of a spill, clear the affected area and protect people.

RESPONSE TO INCIDENTAL RELEASES: Personnel who have received basic chemical safety training can generally handle small scale releases, such as 1 container of this product. Respond to incidental chemical releases by wearing gloves, goggles, and appropriate body protection.

RESPONSE TO NON-INCIDENTAL RELEASES: Respond to non-incident chemical releases of this product, such as the simultaneous puncturing of several containers, by clearing the impacted area and contacting appropriate emergency personnel. Clean up should only be done by qualified personnel.

### METHODS FOR CLEAN-UP

Prevent spill or rinse from contaminating storm drains, sewers, soil or groundwater. Absorb spilled liquid with polypads or other suitable absorbent materials. DO NOT use combustible materials, such as sawdust.

### OTHER INFORMATION

US regulations require reporting spills reach any surface waters.

## 7. HANDLING and STORAGE

### HANDLING

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after using this product. Do not eat or drink while using this material. Avoid generating dusts, mists or sprays of this product.

Remove contaminated clothing immediately. Do not breathe (dust, vapor, mist, gas). Avoid contact with skin, eyes or clothing. In the event of a spill, follow practices indicated in Section 6 (Accidental Release Measures). During maintenance activities make certain that application equipment is locked and tagged-out safely if necessary. Collect any rinsates and dispose of according to applicable U.S. Federal, State, or local procedures or appropriate Canadian standards.

### STORAGE

This product is stable under ordinary conditions of handling, use and storage. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Keep container tightly closed when not in use. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.

## 8. EXPOSURE CONTROLS — PERSONAL PROTECTION

### EXPOSURE GUIDELINES:

CHEMICAL NAME	CAS #	Guideline	Value
Acrylic/methacrylic acid polymer/copolymer	Proprietary	NE	NE
Sulphonic/carboxylic terpolymer	Proprietary	NE	NE
Phosphonic acid derivative	Proprietary	NE	NE
pH adjusting agent	Proprietary	NE	NE

NE = Not Established. See Section 16 for Definitions of Terms Used.

### ENGINEERING CONTROLS

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### EYE/FACE PROTECTION

For specific industrial applications, enhanced eye protection can be necessary. Use approved safety goggles or safety glasses, as described in OSHA 29 CFR 1910.133. If necessary, refer to U.S. OSHA 29 CFR 1910.133, or appropriate Canadian standards.

#### SKIN PROTECTION

For specific industrial applications, wear chemical impervious gloves (e.g., Neoprene or Nitrile). If necessary, refer to U.S. OSHA 29 CFR 1910.138 or the appropriate standards of Canada. For consumer use, no specific body protection is normally needed.

#### BODY PROTECTION

For general industrial applications, chemically protective clothing is not normally needed. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects can pierce the soles of the feet or where employee's feet can be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

#### RESPIRATORY PROTECTION

None needed under normal conditions of use or handling. Use NIOSH approved respirators if ventilation is inadequate to control dusts, mists, fumes or vapors. Maintain airborne contaminate concentrations below guidelines listed above. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres use of a full-face-piece pressure/demand SCBA or a full face-piece, supplied air respirator with auxiliary self-

contained air supply is required under OSHA's Respiratory Protection Standard (29 CFR 1910.134).

#### General Hygiene Considerations

There are no known hygiene hazards associated with this material when used or handled as recommended.

### **9. PHYSICAL and CHEMICAL PROPERTIES**

#### **PHYSICAL PROPERTIES**

RELATIVE VAPOR DENSITY (air = 1): >1

EVAPORATION RATE (BuAc=1): Similar to water

SPECIFIC GRAVITY: 1,15 ± 0,05

MELTING/FREEZING POINT: 0 °C

SOLUBILITY IN WATER: Soluble

BOILING POINT: 100 °C (212 °F)

VAPOR PRESSURE, mm Hg @ 20°C: Not Available

pH: 4,0–6,0

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not Available

PHYSICAL STATE, APPEARANCE AND COLOR: This product is a clear, colorless or light yellowish, solution with a light specific odor.

HOW TO DETECT THIS SUBSTANCE (warning properties): The appearance and odor of this product can act as warning properties in the event of an accidental release.

### **10. STABILITY and REACTIVITY**

#### **CHEMICAL STABILITY**

Stable under normal circumstances of use and handling.

#### **CONDITIONS TO AVOID**

Avoid contact with incompatible chemicals and exposure to extreme temperatures. Avoid freezing.

#### **INCOMPATIBLE MATERIALS**

This product is not compatible with strong bases, strong acids, and powerful oxidizers.

#### **HAZARDOUS DECOMPOSITION PRODUCTS**

Thermal decomposition of this product can generate dusts, irritating fumes, and toxic gases (e.g., Carbon monoxide, Carbon dioxide).

#### **POSSIBILITY OF HAZARDOUS REACTIONS**

This product is not expected to undergo hazardous polymerization, decomposition, condensation or self-reactivity.

### **11. TOXICOLOGICAL INFORMATION**

**TOXICITY DATA:** There are currently no toxicity data available for this product; the following toxicology information is available for components greater than 1% in concentration.

#### **Acrylic/methacrylic acid polymer/copolymer**

Acute Oral (LD50), rats: > 5000 mg/kg

Acute Dermal (LD50), rabbits: > 5000 mg/kg

Eye Irritation, rabbits: slight

Skin Irritation, rabbits: slight

#### **Sulphonic/carboxylic terpolymer**

Acute Oral (LD50), rats: > 5000 mg/kg

Acute Dermal (LD50), rabbits: > 5000 mg/kg

Eye Irritation, rabbits: moderate to severe

Skin Irritation, rabbits: moderate to severe

**Phosphonic acid derivative**

Acute Oral (LD50), rats: 2000 mg/kg

Acute Dermal (LD50), rabbits: 10000 mg/kg

Eye Irritation, rabbits: moderate to severe

Skin Irritation, rabbits: moderate to severe

**pH adjusting agent**

Acute Oral (LD50), rabbits: 500 mg/kg

Eye Irritation, rabbits: moderate to severe

Skin Irritation, rabbits: moderate to severe

**SUSPECTED CANCER AGENT:** The following table summarizes the carcinogenicity listing for the components of this product. "NO" indicates that the substance is not considered to be, or suspected to be, a carcinogen by the listed agency, see section 16 for definition of other ratings.

CHEMICAL	IARC	NTP	NIOSH	ACGIH	OSHA	CA PROP 65
Acrylic/methacrylic acid polymer/copolymer	No	No	No	No	No	No
Sulphonic/carboxylic terpolymer	No	No	No	No	No	No
Phosphonic acid derivative	No	No	No	No	No	No
pH adjusting agent	No	No	No	No	No	No

**IRRITANCY OF PRODUCT:** This product can be irritating to contaminated tissue.

**SENSITIZATION TO THE PRODUCT:** The components of this product are not reported to be sensitizers

**TOXICOLOGICAL SYNERGISTIC PRODUCTS:** None.

**REPRODUCTIVE TOXICITY INFORMATION:** Listed below is information concerning the effects of this product and its components on the human reproductive system.

**Mutagenicity:** When used as directed, this product is not expected to produce mutagenic effects in humans

**Embryotoxicity:** When used as directed, this product is not expected to produce embryotoxic effects in humans.

**Teratogenicity:** When used as directed, this product is not expected to produce teratogenic effects in humans

**Reproductive Toxicity:** When used as directed, this product is not expected to produce reproductive toxicity in humans.

A **mutagen** is a chemical that causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An **embryotoxin** is a chemical that causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A **teratogen** is a chemical that causes damage to a developing fetus, but the damage does not propagate across generational lines. A **reproductive toxin** is any substance that interferes in any way with the reproductive process.

**BIOLOGICAL EXPOSURES INDICES (BEIs):** There are no BEI's established for any component of this product at this time.

## 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

### ECOTOXICITY:

This product can be harmful to terrestrial plant and animal life if large volumes of it are released into the environment. Refer to Section 11, "Toxicological Information", for specific animal data. The following aquatic toxicity data is available for components of this product:

Acrylic/methacrylic acid polymer/copolymer

AQUATIC TOXICITY (LC50-ppm)

Daphnia (48 hours): > 1000

Sunfish (96 hours): > 1000



Trout (96 hours): 700  
 Sulphonic/carboxylic terpolymer

Species	Duration of Study (Hours)	LC50 (mg/L)	NOEL*
Bluegill	96	> 1000	> 1000
Trout	96	> 1000	560
Daphnia	48	> 1000	> 1000
Algae (EC <sub>50</sub> )	96	58	> 10

\*NOEL = No Observed Effect Level

#### Phosphonic acid derivative

Aquatic Toxicity: Non-toxic to aquatic organisms and not suspected to long-term adverse effects in the aquatic environments.

LC50=>368 mg/l 96 hours Rainbow trout

LC50=527 mg/l 48 hours Daphnia magna

#### pH adjusting agent

Data not available.

### 13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL:

Recover or recycle if possible. **Industrial Use:** Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations or with regulations of Canada.

EPAWASTE NUMBER: Not applicable to wastes consisting only of this product; however, the specific RCRA codes depend on the exact nature of the discarded material.

### 14. TRANSPORTATION INFORMATION

BASIC SHIPPING DESCRIPTION

This product is not hazardous per 49 CFR 172.101, the U.S. Department of Transportation.

PROPER SHIPPING NAME: Not Regulated

BASIC SHIPPING DESCRIPTION

This product is not hazardous per 49 CFR 172.101, the U.S. Department of Transportation.

PROPER SHIPPING NAME: Not Regulated

HAZARD CLASS NUMBER and DESCRIPTION: Not Regulated

UN IDENTIFICATION NUMBER: Not Regulated

DOT LABEL(S) REQUIRED: Not Regulated

PACKAGING GROUP: Not Regulated

NORTH AMERICAN RESPONSE GUIDEBOOK NUMBER (2000): Not Regulated

MARINE POLLUTANT: No component is designated as a DOT Marine Pollutant.

#### ADDITIONAL INFORMATION

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is not considered as dangerous goods, per Transport Canada regulations.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA) REGULATIONS: This product is not hazardous per IATA regulations.

INTERNATIONAL MARITIME ORGANIZATION REGULATIONS (IMO): This product is not hazardous per IMO regulations.

MARINE POLLUTANT: No component is designated as a Marine Pollutant.

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO): This product is not hazardous per ICAO

regulations.

**15. REGULATORY INFORMATION**

**ADDITIONAL U.S. REGULATIONS - EPA REPORTING REQUIREMENTS:**

The following reporting requirements are applicable to components of this product:

CHEMICAL	SECTION 302 EHS (TPQ) (40CFR355, Appendix A)	SECTION 304 RQ (40 CFR Table 302.4)	SECTION 313 TRI (threshold) (40CFR372.65)
Acrylic/methacrylic acid polymer /copolymer	No	No	No
Sulphonic/carboxylic terpolymer	No	No	No
Phosphonic acid derivative	No	No	No
pH adjusting agent	No	No	No

U.S. SARA SECTION 311/312 FOR PRODUCT: None.

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

OTHER U.S. FEDERAL REGULATIONS: Not applicable.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This material is not found on either the Proposition 65 Carcinogen List or the Adverse Reproductive Effects List.

**ADDITIONAL CANADIAN REGULATIONS:**

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are listed on the DSL Inventory.

**16. OTHER INFORMATION**

Date of issue: 10/17/2019. Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and "Ecosoft" SPC LTD. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.