Material Safety Data Sheet

Pure Treat BWT (RXSOL-23-2901-035)

1. Product and Company Identifaction

Product Name	Pure Treat BWT
Part Number	RXSOL-23-2901-035

Company Details:....

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / informationon ingredients

Mixtures

Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Sodium Chlorate	CAS:7775-09-9 EC Number:231-887-4 EU Index:017-005-00-9	40%	Ingestion/Oral-Rat LD50 • 1200 mg/kg	UN GHS: Ox. Sol. 1; Acute Tox. 4 (orl); Aquatic Chronic 2 EU DSD/DPD: Annex VI, Table 3.2: O; R9; Xn; R22; N; R51-53 / R5; R32 EU CLP: Annex VI, Table 3.1: Ox. Sol. 1, H271; Acute Tox. 4, H302; Aquatic Chronic 2, H411 / Acute Tox. 3, H332; EUH032 OSHA HCS 2012: Ox. Sol. 1; Acute Tox. 4 (orl)	Not applicable
Hydrogen peroxide	CAS:7722-84-1 EC Number:231-765-0 EU Index:008-003-00-9	8%	Ingestion/Oral-Rat LD50 • 376 mg/kg Inhalation-Rat LC50 • 2000 mg/m³	UN GHS: Skin Corr. 1A; Eye Dam. 1; Acute Tox. 4 (orl, inhl); Acute Tox. 5 (orl); Aquatic Acute 3 EU DSD/DPD: Annex VI, Table 3.2: R5; O; R8; C;R35; Xn; R20/22 EU CLP: Annex VI, Table 3.1: Ox. Liq. 1, H271; Acute Tox. 4, H332; Acute Tox. 4, H302; Skin Corr. 1A, H314; STOT SE 3: Resp. Irrit., H335 OSHA HCS 2012: Skin Corr. 1A; Eye Dam. 1; Acute Tox. 4 (orl, inhl)	Not applicable
Proprietory Blend of Corrosion Inhibitors	-	> 50%	-	-	-

3. Hazards Identification

Classification of the substance or mixture

CLP	Oxidizing Liquids 1 - H271 Acute Toxicity Oral 4 - H302 Skin Irritation 2 - H315 Serious Eye Damage 1 - H318 Acute Toxicity Inhalation 4 - H332 Hazardous to the aquatic environment Chronic 2 - H411 EUH032
DSD/DPD	Oxidizing (O) Irritant (Xi) Harmful (Xn) Dangerous to the Environment (N) R8, R20, R22, R32, R38, R41, R51, R53

Label elements

Hazard Statements	H271 - May cause fire or explosion; strong oxidizer H302 - Harmful if swallowed H318 - Causes serious eye damage H332 - Harmful if inhaled H411 - Toxic to aquatic life with long lasting effects EUH032 - Contact with acids liberates very toxic gas.
Precautionary Statements	
Prevention	P210 - Keep away from heat. P220 - Keep/Store away from clothing and other combustible materials. P221 - Take any precaution to avoid mixing with combustibles P261 - Avoid breathing mist, vapours, or spray. P264 - Wash thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P283 - Wear flame resistant clothing.
Response	P370+P378 - In case of fire: Use appropriate media Water only for extinction. P371+P380+P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. P391 - Collect spillage. P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P306+P360 - IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician. P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell. P330 - Rinse mouth.
Risk phrases	R8 - Contact with combustible material may cause fire. R20 - Harmful by inhalation. R22 - Harmful if swallowed. R32 - Contact with acids liberates very toxic gas. R38 - Irritating to skin. R41 - Risk of serious damage to eyes. R51 - Toxic to aquatic organisms. R53 - May cause long-term adverse effects in the aquatic environment.
Safety phrases	S3/14 - Keep in a cool place away from combustible material. S26 - In case of contact with eyes, rinse immediately with plenty of water and seekmedical advice. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S46 - If swallowed seek medical advice immediately and show this container label. S50 - Do not mix with acid S57 - Use appropriate containment to avoid environmental contamination. S61 - Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

Other hazards

CLP	Contamination from metals will cause rapid decomposition resulting in oxygen gas release and pressure build up if not properly vented. According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD	Contamination from metals will cause rapid decomposition resulting in oxygen gas release and pressure build up if not properly vented. According to European Directive 1999/45/EC this material is considered dangerous.

4. First Aid Measures

Description of first aid measures

Inhalation	Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
Skin	Wash skin with soap and water. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.
Eye	Contact lenses should not be worn when working with Pure Treat BWT. In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Give plenty of water to drink. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately.
Most important symptoms and effects, both acute and delayed	Refer to Section 11 - Toxicological Information.
Indication of any immediate medical attention and special treatment needed	
Notes to Physician	All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Sodium chlorate poisoning is rare, but is associated with a high mortality rate with death generally occurring from massive intravascular hemolysis and acute renal failure. Sodium thiosulfate (2 to 5 gm. in 200 ml of 5% sodium bicarbonate) is a specific antidote that can be given orally or by I.V. DO NOT treat with methylene blue because of risk of methemoglobinemia. Sodium chlorate is freely dialyzable, and early treatment by peritoneal or hemodialysis is recommended. Direct contact of hydrogen peroxide with the eye is likely to cause corneal damage, especially if not washed away immediately. Care opthalmologic evaluation is recommended. Attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided. In the event of severe distention of the stomach or esophagus due to gas formation, insertion of a gastric tube may be required.

5. Fire-fighting Measures

Extinguishing media

Suitable extinguishing media	SMALL FIRES: Use water. LARGE FIRE: Flood fire area with water from a distance
Unsuitable extinguishing media	DO NOT USE CO2, Halon, dry chemical or powder fire extinguishers, or fire blankets in the event solid sodium chlorate is involved as these are totally ineffective and may confine the heat and create a worse situation.
Special hazards arising from the substance or mixture	
Unusual Fire and Explosion Hazards	Containers may explode when heated. May explode from heat or contamination. May ignite combustibles (wood, paper, cloth, and leather) if allowed to dry and may be ignited by friction or heat. Runoff may create fire or explosion hazard. Some may decompose explosively when heated or involved in a fire. Some will react explosively with hydrocarbons (fuels) These substances will accelerate burning when involved in a fire. The product will sustain combustion due to release of oxygen (upon thermal decomposition).
Hazardous Combustion Products	No data available
Advice for firefighters	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing will only provide limited protection. Move containers from fire area if you can do it without risk. LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out. LARGE FIRES: ALWAYS stay away from tanks engulfed in fire. LARGE FIRES: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

6. Accidental Release Measures

Personal Precautions	Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Contaminated clothing may be a fire risk when dry.
Emergency Procedures	As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 100 meters (330 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Ventilate closed spaces before entering. Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Do not get water inside container.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas.
Methods and material for containment and cleaning up	
Containment/Clean-up Measures	Stop leak if you can do it without risk. Avoid the solution coming into contact with inappropriate material such as certain metals and organic materials. SMALL LIQUID SPILLS: Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal. LARGE SPILLS: Dike far ahead of spill for later disposal. LARGE SPILLS: Following product recovery, flush area with water. Do not get water inside containers.
Reference to other sections	Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

7. Handling and Storage

Handling	Use only with adequate ventilation. Keep away from combustible and flammable materials. Avoid contact with heat and ignition sources. Avoid contact with acidic media which can liberate chlorine dioxide gas. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Contaminated clothing may be a fire risk when dry. Paper, wood, cloth, and leather impregnated with sodium chlorate solution are highly combustible if allowed to dry, and may be ignited by friction or heat. Wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.
Conditions for safe storage, including any incompatibilities	
Storage	Keep away from combustible material. Keep away from sources of ignition – No Smoking. Store in properly vented containers or tanks. Store in a cool, dry, wellventilated place. DO NOT allow the temperature of the storage container to rise above 104°F (40°C). Never return unused product to storage container.
Specific end use(s)	Refer to Section 1.2 - Relevant identified uses

8. Exposure controls and personal protection

Control parameters

Exposure Limits/Guidelines

	Result	ACGIH	NIOSH	OSHA
Hydrogen peroxide (7722-84-1)	TWAs	1 ppm TWA	1 ppm TWA; 1.4 mg/m3 TWA	1 ppm TWA; 1.4 mg/m3 TWA

Exposure controls

Engineering Measures/Controls	Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
Personal Protective Equipment	
Respiratory	In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.
Eye/Face	Goggles for normal handling conditions. Face shield for open handling. Do not wear contact lenses.
Hands	Wear protective gloves - neoprene, nitrile, natural rubber, or PVC.

Skin/Body	Wear long sleeves and/or protective coveralls. Use of impervious boots is recommended.
Environmental Exposure Controls	Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

9. Physical and chemical properties

Physical state	Liquid
Colour	Clear, Colourless to Yellow Colored
Odor	Faintly odored.
Odor Threshold	Data lacking
Boiling Point	219.2 F(104 C)
Melting Point	29 C(-20.2 F)
Decomposition Temperature	219.2 F(104 C)
Specific Gravity/Relative Density	Data lacking
Bulk Density	1.37 Water=1
Viscosity	1370 kg/m³
Oxidizing Properties	Strong oxidant.
Water Solubility	Soluble
Explosive Properties	Data lacking
Vapor pressure	0.1 kPa 40°C and 80°C as sodium chlorate solution
Vapour Density	Data lacking
Evaporation Rate	> 1 n-Butyl Acetate = 1
Flash Point	Not relevant
UEL	Not relevant
LEL	Not relevant
Autoignition	Not relevant
Flammability (solid, gas)	Not relevant
Octanol/Water Partition coefficient	Not relevant
Other Information	No additional physical and chemical parameters noted.

10. Stability and reactivity

Reactivity	No dangerous reaction known under conditions of normal use
Chemical stability	Stable under normal temperatures and pressures.
Possibility of hazardous reactions	Hazardous polymerization will not occur.
Conditions to avoid	Avoid heat, flame, strong UV light and other sources of ignition.
Incompatible materials	May react with acids, organic matter, expanded plastics such as polystyrene or polyurethane, ammonium salts, sulfur or sulfides, phosphorus, arsenic, metals including copper, zinc, aluminum or other metals, manganese dioxide, potassium cyanide, and thiocyanates. Incompatible with soluble metals and their salts (i.e. iron, copper, chromium, vanadium, tungsten, molybdenum, and platinum), reducing agents, organic materials, as well as flammable and combustible materials.
Hazardous decomposition products	Material will react with strong mineral acids liberating chlorine dioxide gas. Contamination from various metals or organic materials may cause rapid decomposition of the hydrogen peroxide, resulting in oxygen gas release and pressure buildup if not properly vented.

11. Toxicological information

Information on toxicological effects

GHS Properties	Classification

Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 4; Acute Toxicity - Oral 4 - ATEmix (oral): 1840 mg/kg OSHA HCS 2012 • Acute Toxicity - Inhalation 4; Acute Toxicity - Oral 4 - ATEmix (oral):1840 mg/kg UN GHS • Acute Toxicity - Inhalation 4; Acute Toxicity - Oral 4 - ATEmix (oral): 1840 mg/kg
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking.
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Inhalation	
Acute (Immediate)	Under normal conditions of use, no health effects are expected.
Chronic (Delayed)	No data available.
Skin	
Acute (Immediate)	Causes skin irritation.
Chronic (Delayed)	No data available.
Eye	
Acute (Immediate)	Causes serious eye irritation.
Chronic (Delayed)	No data available.
Ingestion	
Acute (Immediate)	Harmful if swallowed.
Chronic (Delayed)	No data available.

12. Ecological information

Dosage	Species	Duration	Results	Exposure Conditions	Comments
468 mg/L	Aquatic Plant(s): Algae	3 Day(s)	EC50	N/A	Sodium Chlorate
919.3 mg/L	Crustacea: Water flea	2 Day(s)	EC50	N/A	Sodium Chlorate
14300 mg/L	Fish: Fathead minnow	4 Day(s)	N/A	N/A	Sodium Chlorate
50 mg/L	Aquatic Plant(s): Algae	3 Day(s)	NOEC	N/A	Sodium Chlorate
526 mg/L	Crustacea: Water flea	21 Day(s)	NOEC	N/A	Sodium Chlorate
18-32 mg/L	Water Flea: Daphnia magna	48 Hour(s)	EC50	N/A	Hydrogen peroxide
>1000 mg/L	Fish: Fathead minnow	96 Hour(s)	LC50	N/A	Sodium Chlorate

13. Disposal considerations

Waste treatment	Method
Product waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
Packaging waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

14. Transport information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN2428	Sodium chlorate, aqueous solution	5.1	II	N/A
TDG	UN2428	Sodium chlorate, aqueous solution	5.1	II	N/A
IMO/IMDG	UN2428	Sodium chlorate, aqueous solution	5.1	II	N/A
IATA/ICAO	UN2428	Sodium chlorate, aqueous solution	5.1	II	N/A

15. Regulatory information

FIFRA – Pesticide Labeling	This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of nonpesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use. For industrial use Keep out of reach of children.
Hazards to Humans and Domestic Animals	Corrosive to skin and eyes. Causes irreversible eye damage. Harmful if absorbed through the skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear (goggles or face shield). Wear protective clothing and gloves (neoprene, plastic, or rubber). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.
First Aid	IF IN EYES: Hold eye open and flush with a directed stream of water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. IF ON SKIN OR CLOTHING:Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor immediately for treatment advice. IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage
Environmental Hazards	This product is toxic to freshwater and saltwater aquatic invertebrates, including shrimp. Do not discharge effluent containing this product into lakes, 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. For guidance contact your State Water Board or Regional Office of the EPA.
Physical or Chemical Hazards	Purate? BWT is a strong oxidizing agent. Do not contaminate with dirt, oils or organic matter of any sort. Contamination may cause violent chemical reactions, fire and explosion. Clean up all chemical spills immediately. Allowing spills to dry or concentrate may cause spontaneous combustion. In case of chemical spills, avoid bodily contact and wear appropriate protective equipment.

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if RX Marine International has been advised of the possibility of such damages. DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.