

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

**1.1 Product identifier**

**Product Name:** TubeGuard XL™  
**Product Codes(s):** Tube Guard XL  
**Synonyms:** None applicable  
**REACH Registration Number:** No data available

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**General Use:** Corrosion inhibitor and biofilm remover. For use with Goodway's RAM PRO XL device.  
**Uses advised against:** No uses advised against

**1.3 Details of the supplier and of the safety data sheet**

**Manufacturer/Distributor**  
 Goodway Technologies Corp.  
 420 West Avenue  
 Stamford, CT 06902 USA  
 +1-203-359-4708; Toll free: +1-800-243-7932

**1.4 Emergency telephone number**

Chemtrec (24 hours): +1-800-424-9300

**SECTION 2 - HAZARDS IDENTIFICATION**

**2.1 Classification of substance or mixture**

**Product definition:** Mixture  
**Classification (Regulation (EC) No 1272/2008)**  
 Skin Irritation - Category 2 [H315]  
 Eye Irritant - Category 2 [H319]

**2.2 Label Elements**

**Labeling (Regulation (EC) No 1272/2008)**

**Hazard Symbol(s):**



**Signal Word:** Warning

**Hazard Statement(s):** H315 - Causes skin irritation  
 H318 - Causes serious eye damage

**Precautionary Statements:**

- [Prevention]** P264 - Wash hands and other skin areas exposed to material thoroughly after handling.  
 P280 - Wear protective gloves and eye protection.
- [Response]** P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 - If eye irritation persists: Get medical advice.  
 P332 + P313 - If skin irritation occurs: Get medical attention.  
 P362 - Take off contaminated clothing and wash before reuse.  
 P321 - Specific treatment: Get medical advice or refer to Section 4 of this SDS.

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

**Chemical characterization (preparation)**

% by Weight	Ingredient	CAS Number	EC Number	Index Number	EC Classification
<50	Sodium Carbonate	497-19-8	207-838-8	011-005-00-2	Xi, R36
<10	Sodium Molybdate Dihydrate	10102-04-6	-----	-----	-----
<10	Tolyltriazole	29385-43-1	249-596-6	-----	-----
<7	Sodium Phosphate	7446-19-7	231-838-7	-----	-----
<5	Sodium Metasilicate	6834-92-0	229-912-9	014-010-00-8	C, R34; Xi, R37
<2	Tetrasodium Pyrophosphate	7722-88-5	231-767-1	-----	-----

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of first aid measures

**Inhalation:** If product dust causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. Seek medical attention if cough or other symptoms appear or persist.

**Eyes:** Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 5 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

**Skin:** Flush skin with large amounts of water while removing contaminated clothing and continue rinsing for at least 15 minutes. Wash contaminated clothing and shoes thoroughly before reuse. If skin irritation occurs or persists, seek medical attention.

**Ingestion:** Remove dentures, if any. Rinse mouth with water. If swallowed, give 1 - 2 cupfuls of water or milk if victim is conscious and alert. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Obtain medical attention immediately if ingested. To prevent aspiration of swallowed product, lay victim on side with head lower than waist.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential health symptoms and effects

**Eyes:** Causes serious eye irritation. Symptoms may include redness, swelling, pain and tearing. Particulates can cause mechanical abrasion of the cornea. The degree of injury depends on the concentration (if in solution) and duration of contact.

**Skin:** Causes skin irritation. Symptoms include redness, itching, swelling and discomfort. The degree of injury depends on the concentration (if in solution) and duration of contact.

**Inhalation:** Dust may cause irritation of the nose, throat and respiratory tract. Symptoms may include sore throat, coughing and shortness of breath.

**Ingestion:** May be harmful if swallowed. Symptoms may include headache, abdominal pain, nausea, vomiting and diarrhea.

**Chronic:** Persons with pre-existing disorders of the skin or impaired respiratory function may be more susceptible to the effects of this substance. Prolonged and repeated skin contact can result in dermatitis or eczema. Chronic exposure to product dust may lead to inflammations of the mucous membranes of the airways (bronchitis, laryngitis), and may cause conjunctivitis. Sodium Molybdate is a confirmed animal carcinogen (refer to section 11.2). When used as directed (1 tablet/1,000 gallons of water) the concentration of Sodium Molybdate in solution is <4 ppm or 0.004%, which is well below the 0.1% reporting threshold (de minimis) for suspected carcinogens.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Advice to Doctor and Hospital Personnel:** Treat symptomatically and supportively.

## SECTION 5 - FIRE FIGHTING MEASURES

### 5.1 Extinguishable media

**Suitable methods of extinction:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable methods of extinction:** None known

### 5.2 Special hazards arising from the substance or mixture

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**Explosion hazards:** Not considered to be an explosion hazard.

### 5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. Fire fighters should try to contain water contaminated by this material from being discharged to any waterway, sewer or drain to prevent environmental contamination.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Ventilate the area. Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8.

### 6.2 Environmental precautions

Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways.

### 6.3 Methods and materials for containment and cleaning up

Cover drains and contain spill. Spilled product can be reused. Collect product for reuse or place in an approved container for proper disposal.

Minimize dust generation during clean-up. Carefully sweep, vacuum or shovel up crushed material and place into an approved container for proper disposal. Observe possible restrictions (Sections 7.2 and 10.5). Do not allow material or runoff from rinsing contaminated areas to enter storm drains and ditches which lead to waterways. Dispose of waste properly.

### 6.4 Reference to other sections

See Section 13 for additional waste treatment information.

## SECTION 7 - HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8. Minimize dust generation. Do not get in eyes or on skin or clothing. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear appropriate respiratory protection.

#### Advice on protection against fire and explosion

Not considered to be a fire or explosion hazard

## 7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10.5), food and drink. Transfer only to approved containers having correct labeling. Keep container tightly closed to prevent moisture absorption. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Containers of this material may be hazardous when empty as they contain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

## 7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

# SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

## 8.1 Control parameters

CAS Number	Ingredient	OSHA PEL - TWA	ACGIH TLV	NIOSH
10102-40-6	Sodium Molybdate Dihydrate	5 mg/m <sup>3</sup> TWA (as Mo) (listed under Molybdenum soluble compounds)	0.5 mg/m <sup>3</sup> TWA (respirable fraction as Mo); (listed under Molybdenum soluble compounds)	1,000 mg/m <sup>3</sup> IDHL (as Mo) (listed under Molybdenum soluble compounds)

## 8.2 Exposure controls

**Engineering measures:** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1 for additional data.

**Individual protection measures:** Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

**Hygiene measures:** Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

**Eye/face protection:** Wear safety glasses with non-perforated side shields. Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN166.

**Hand protection:** Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of gloves must be greater than the intended use period.

**Other protective equipment:** Protective clothing. Protective boots, if the situation requires.

**Respiratory protection:** None needed with normal handling. Wear an approved filter type dust respirator if needed when handling this product. Where risk assessment shows air purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respiratory and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

# SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Blue, solid pellet
<b>Odor</b>	Slight, aromatic
<b>Odor Threshold</b>	No data available
<b>Molecular Weight</b>	Not applicable
<b>Chemical Formula</b>	Not applicable
<b>pH</b>	8 - 9 (1% aqueous solution)
<b>Freezing/Melting Point, Range</b>	No data available
<b>Initial Boiling Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Non-flammable
<b>Flash Point</b>	Not applicable
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not determined
<b>Lower Explosive Limit (LEL)</b>	Not applicable
<b>Upper Explosive Limit (UEL)</b>	Not applicable
<b>Vapor Pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Specific Gravity</b>	No data available
<b>Viscosity</b>	No data available
<b>Solubility in Water</b>	Soluble
<b>Partition Coefficient: n-octanol/water</b>	No data available
<b>Volatiles by Volume @ 70 °F</b>	0%

## 9.2 Other data

No data available

# SECTION 10 - STABILITY AND REACTIVITY

## 10.1 Reactivity

No special reactivity has been reported.

## 10.2 Chemical stability

This product is stable under recommended storage conditions, handling and use.

### 10.3 Possibility of hazardous reactions

None known

Hazardous polymerization does not occur.

### 10.4 Conditions to avoid

Contact with incompatible materials, moisture and high temperatures.

### 10.5 Incompatible materials

Strong oxidizing agents, acids

### 10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon, oxides of sodium, oxides of nitrogen.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Oral Toxicity

No data available

#### Acute inhalation toxicity

No data available

#### Acute dermal toxicity

No data available

#### Skin irritation/corrosion

Causes skin irritation

#### Eye irritation/corrosion

Causes severe eye irritation and possible eye damage

#### Sensitization

No data available

#### Genotoxicity in vitro/in vivo

No data available

#### Mutagenicity

No data available

#### Specific organ toxicity - single exposure

No data available

#### Specific organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

### 11.2 Further information

**Chronic Effects:** Sodium Molybdate (CAS #7631-95-0): ACGIH, A3 Carcinogen - Confirmed animal carcinogen with unknown relevance to humans (listed as Molybdenum soluble compounds). Not listed as a carcinogen by IARC, NTP or OSHA.

Mutagenicity (mammal cell test): Positive result for Sodium Molybdate (Lit.)

When used as directed (1 tablet/1,000 gallons of water) the concentration of Sodium Molybdate in solution is <4 ppm or 0.004%, which is well below the 0.1% reporting threshold (de minimis) for suspected carcinogens. It is not considered to be a health hazard when used as instructed.

No data is available regarding the mutagenicity and/or teratogenicity of this product, nor is there any available data that indicates it causes adverse developmental and/or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12 - ECOLOGICAL INFORMATION

### 12.1 Toxicity

When used as directed, product is not considered to be hazardous to aquatic organisms and the environment.

### 12.2 Persistence and degradability

Inorganic substances are not biodegradable. Methods for the determination of biodegradability are not applicable to inorganic substances.

### 12.3 Bioaccumulation potential

Product is not expected to bioaccumulate.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available.

### 12.6 Other adverse effects

#### Additional ecological information

Do not allow material to enter into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13 - DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Methods of disposal:** The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable solid product in an

approved landfill. Dispose of solutions through normal sump systems. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled solid material and its contact with soil and waterways.

**Hazardous waste:** The classification of this product may meet the criteria for a hazardous waste.

## SECTION 14 - TRANSPORT INFORMATION

**Note:** Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

NOT REGULATED FOR TRANSPORT

## SECTION 15 - REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

#### U. S. Federal Regulations

**OSHA Hazard Communication Standard:** This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**OSHA Process Safety Management Standard:** Chemicals in this product are not regulated under OSHA PSM Standard 29 CFR 1910.119.

**EPA Risk Management Planning Standard:** Chemicals in this product are not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

**EPA Federal Insecticide, Fungicide and Rodenticide Act:** This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

**TSCA Status:** All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product is subject to TSCA 12(b) Export Notification.

#### **Superfund Amendments and Reauthorization Act (SARA)**

**SARA 313 Information:** None of the chemicals in this product are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

**SARA Section 311/312 Hazard Categories:** Acute Health Hazard

**SARA 302/304 Extremely Hazardous Substance:** None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.

**SARA 302/304 Emergency Planning & Notification:** None of the chemicals in this product are subject to reporting requirements of these sections of Title III of SARA.

**Comprehensive Response Compensation and Liability Act (CERCLA):** This product contains no CERCLA reportable substances.

#### **Clean Air Act (CAA)**

This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depletors.

This product does not contain any Class 2 Ozone depletors.

#### **Clean Water Act (CWA)**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### U.S. State Regulations

##### **California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:**

This product contains no chemical(s) known to the state of California to cause cancer or other reproductive harm.

##### **Other U.S. State Inventories:**

None of the chemicals in this product are listed on any State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/ Air Pollutants Lists.

#### Canada

**WHMIS Hazard Symbol and Classification:** Does not meet criteria

**Canadian Controlled Products Regulations (CPR):** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations, and the SDS contains all the information required by the Controlled Products Regulations.

**Canadian Ingredient Disclosure List (IDL):** Sodium Molybdate and Sodium Carbonate are listed on the IDL.

**Canadian National Pollutant Release Inventory (NPRI):** None of the substances in this product are listed on the NPRI.

#### European Economic Community

##### **Labeling (67/548/EEC or 1999/45/EC)**



Xi - Irritant

**Risk Phrases:** R38 - Irritating to skin.

R36/38 - Irritating to eyes and skin.

**Safety Phrases:** S2 - Keep out of the reach of children.

S39 - Wear eye protection.

**WGK, Germany (Water danger/protection):** 2 (solid form); nwg (used as directed)

## Global Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
Canada	Domestic Substance List (DSL)	Yes
Canada	Non-Domestic Substance List (NDSL)	No
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

\*"Yes" indicates that all components of this product are in compliance with the inventory requirements administered by the governing country.

\*\*"No" indicates that one or more components of this product are not on the inventory and are not exempt from listing.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16 - OTHER INFORMATION

### Hazardous Material Information System (HMIS)

Health	* 1
Flammability	0
Physical Hazard	0
Personal Protection	B

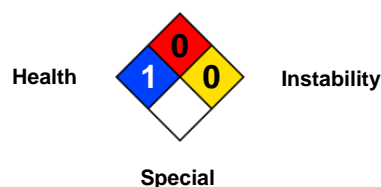


### HMIS & NFPA Hazard Rating Legend

\* = Chronic Health Hazard      2 = MODERATE  
 0 = INSIGNIFICANT              3 = HIGH  
 1 = SLIGHT                        4 = EXTREME

### National Fire Protection Association (NFPA)

#### Flammability



### Full Text of Risk (R) – Phrases Referenced in Section 3.

- R34 - Causes burns.
- R36 - Irritating to eyes.
- R37 - Irritating to respiratory system.

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Goodway Technologies, makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Goodway Technologies be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. Representations or warranties, either express or implied or merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers.

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