

Holdtight Solutions Inc. / HOLDTIGHT®102

MATERIAL SAFETY DATA SHEET (MSDS)

ISO 11014-1 format (6 page ver.)

NOTE: Read and understand Material Safety Data Sheet (MSDS) before handling or disposing of product. Six (6) pages total.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Name: **HoldTight® 102** salt remover / flash rust Preventer

Chemical Name and/or Family or Description: Proprietary Formulated Amine Compound
 Manufacturer's Name and Address: HoldTight Solutions Inc.

Telephone Numbers: 713.266.9339 800.319.8802
 FAX / email 713.266.1022 info@holdtight.com

24 Hour Emergency Response Information
 CANUTEC
 Transport Dangerous Goods Directorate
 Transport Canada
 Ottawa, Ontario, Canada K1A 0N5
 (613) 996-6666

**NON-HAZARDOUS,
 NON-TOXIC
 BIO-DEGRADABLE,
 NON-FLAMABLE**

2. COMPOSITION / INFORMATION ON INGREDIENTS

The criteria for listing components in the composition section are as follows: Chronic Hazards (Carcinogenic, Teratogenic, Mutagenic, Neurotoxic, and Sensitizers) are listed when present at 0.01% or greater: Acute Hazards are listed when present at 1.0% or greater and Non-Hazardous components are listed when present at 3.0% or greater.

Product and/or Component(s) Carcinogenic according to OSHA	IARC	NTP	OTHER	NONE
-	-	-	-	X

Composition

<u>Chemical/Common Name</u>	<u>Range in %</u>
Proprietary Formulated Amine Compound	25.00
Non- Hazardous Materials	75.00

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: clear liquid, mild ammonia odor

WARNING STATEMENT

CAUTION: may cause eye irritation

HMIS		Health:	1	Reactivity:	0	NFPA		Health:	1	Reactivity:	0
Flammability:	0	Special:	-	Flammability:	0	Special:	-				

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure	X	X	X	-

Effects of Overexposure

Acute: Eyes: May cause irritation, experienced as mild discomfort, and seen as slight redness of the eye.

Skin: No adverse effects expected from absorption of material through the skin. Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Inhalation: Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Ingestion: May, in very large quantities, cause abdominal discomfort, nausea, and diarrhea.

Sensitization

Properties: This product is not expected to be a human sensitizer based on animal data.

Chronic: No adverse effects anticipated.

Medical Conditions

Aggravated

By Exposure: Repeated skin contact may aggravate an existing dermatitis (skin condition).

Repeated overexposure may aggravate existing kidney disease.

Other Remarks: None

4. FIRST AID MEASURES

Eyes: Flush eyes with water several times. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention if irritation persists.

Skin: Wash skin with soap and water. Get medical attention if skin irritation develops or persists.

Ingestion: None considered necessary.

Inhalation: If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.

Other Instructions: None

5. FIRE-FIGHTING MEASURES

Ignition Temp. Degrees F.: N.D.
Flash Point Degrees F. (Method): >400°F (PMCC)
Flammable Limits (%): Lower: N.D. Upper: N.D.

Recommended Fire Extinguishing Agents and Special Procedures:

According to NFPA Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for person attempting to stop the leak.

Unusual or Explosive Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Procedures in Case of Accidental Release, Breakage or Leakage:

Ventilate area to accelerate evaporation. Contain spill if possible. Avoid contact with skin, eyes or clothing. Low concentrations of the active ingredient can be degraded in a biological wastewater treatment system. Aquatic toxicity data indicates a very low order or negligible toxicity to aquatic organisms. It is, therefore, feasible to dispose of in a sanitary sewer with large amounts of water.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage: Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided. Protect from freezing temperatures. Also see HMIS label on container

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection: Chemical - type goggles or face shield optional, but recommended to prevent eye contact.

Skin Protection: Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

Respiratory Protection: Pursuant to standard industrial safety procedures, if vapor, mist or dust is generated in a contained space without fresh air ventilation, use respirator approved by MSHA or NIOSH as appropriate. See below for

applicable permissible concentrations.

Ventilation: Adequate to meet occupational exposure limits. General exhaust ventilation is acceptable. (See below)

Exposure Limit For Product: 25 mg/m³ (TWA - ACGIH) undiluted; 1250 – 6250 mg/ m³ diluted 50:1 to 250:1 per instructions for use

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: clear liquid, light, pleasant odor
Boiling Point (Degrees F.): 212°F
Percent VOC: N.D.
Evaporation Rate (n-butyl acetate=1) 8.5
Specific Gravity (H₂O=1): 1.0304
pH: 10.2
Solubility in Water: 100%
Vapor Pressure: 10.3 mmHg @: 100°F
Viscosity: 2 cSt @ 77°F
Freezing Point: 23°F
Flash Point >400°F (Method PMCC)
Weight: 8.6 lbs/Gal; 3.9 kg/Gal

10. STABILITY AND REACTIVITY

This Material Reacts Violently With: (If others is checked below, see comments for details)

Air Water Heat Strong Oxidizers Others None of These
- - - - Y -

Comments: This material reacts with acids.

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in a limited air supply.

Hazardous Polymerizations: OCCUR - DO NOT OCCUR X

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose (LD50 LC50) (Species)

Oral: > 10.0 - 25.0 g/kg (rat); slightly toxic
Inhalation: N.D.
Dermal: > 50 g/kg (rabbit); practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin: believed to be 0.5-3.0/8.0 (rabbit); slightly irritating
Eyes: believed to be 15-25/100 (rabbit); slightly irritating
Sensitization: Negative (guinea pig)
Other: Prolonged and repeated ingestion of compounds of active ingredient has caused kidney damage in laboratory animals.

12. ECOLOGICAL INFORMATION

The following information is compiled from various tests and studies on the proprietary compound in HoldTight® 102.

- ! Aquatic toxicity data indicates negligible toxicity to aquatic organisms.
- ! The data show the compound is relatively non-toxic to bacteria, fathead minnows, and Daphnia magna.
- ! The octanol:water partition coefficient, $\log P_{ow} = -1.75$ (Verschueren, 1983), indicates that the compound would not likely bioaccumulate in aquatic organisms.

- ! Biodegradation data show the compound biodegrades and will not persist in the environment. Increased rate of biodegradation by acclimation is expected in biological treatment systems that regularly process wastewater containing the compound.
- ! Environmental toxicity data indicate that optimal conditions will allow low level amounts of this compound to biodegrade (slowly); the residual (if any) will not have an appreciable impact on the environment.
- ! Due to negligible toxicity to aquatic life, product may be disposed of in sanitary sewers.
- ! This formulated compound *is not* a Priority pollutant, under Sec. 307 of the Clean Water Act (CWA) *nor* is it a Hazardous Substance under Sec. 311 of that Act. And it *is not* regulated as a Water Priority Chemical under Title III, Sec. 313 of the Superfund Amendment and Reauthorization Act (SARA).

Contact manufacturer if additional ecological information is needed.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous. However, when used as directed by manufacturer the product may be disposed of in a sanitary sewer system.

REMARKS: Biodegradation data indicates the product biodegrades and will not persist in the environment. An increased rate of biodegradation would be expected via acclimation in biological treatment systems that receive this product on a regular basis in wastewater.

14. TRANSPORT INFORMATION

TRANSPORTATION

DOT: PROPER SHIPPING NAME: NOT REGULATED, US freight classification 55 for establishing freight rates

HAZARD CLASS: N.A.
IDENTIFICATION NUMBER: N.A.
LABEL REQUIRED: None

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: NOT REGULATED

HAZARD CLASS: N.A.
IDENTIFICATION NUMBER: N.A.
LABEL REQUIRED: N.A.

15. REGULATORY INFORMATION

A. Toxic Substance Control Act (TSCA):

This product and/or its components are listed on the TSCA Inventory

B. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

<u>Component</u>	<u>CAS No.</u>	<u>Percent</u>	<u>RQ (lbs)</u>	<u>TPQ (lbs)</u>
NONE				

CERCLA SECTION 102(a) Hazardous Substance

<u>Component</u>	<u>CAS No.</u>	<u>Percent</u>	<u>RQ (lbs)</u>
NONE			

Title III Section 311 Hazard Categorization

<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Pressure</u>	<u>Reactive</u>	<u>Not Applicable</u>
X	-	-	-	-	-

Title III Section 313 Toxic Chemicals

<u>Component</u>	<u>CAS No.</u>	<u>Percent</u>
NONE		

B. WHMIS CLASSIFICATION

Not regulated

C. MICHIGAN CRITICAL MATERIALS

No critical materials present.

D. CALIFORNIA PROPOSITION 65

This product does not contain materials which the State of California has found to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF HOLDTIGHT INC., PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL HOLDTIGHT PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL HOLDTIGHT PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. HOLDTIGHT DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Inquiries regarding MSDS should be directed to:

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P.O. Box 27907
Houston, TX 77227.7907 Phone 713.266.9339 / 800.319.8802 Fax 713.266.1022 / 800.728.8861
email: msds@holdtight.com

In Canada VapCor Inc. 530 Eastchester Ave, St. Catharines, Ontario L2M 7P3
Phone: 905-346-2638/866-642-1311 905-328-8848, fax# 905-682-3300
E-mail: Solutions@Vapcor.com web: www.vapcor.com

PLEASE SEE BELOW FOR SHIPPING / PRODUCT LABEL

17. SHIPPING / PRODUCT LABEL

HoldTight®102

Read and understand Material Safety Data Sheet before handling or disposing of product.

INSTRUCTIONS FOR USE

In humid ambient conditions (i.e. 40°F and 90% relative humidity) with significant surface contamination, a 50:1 ratio (50 parts water to 1 part HoldTight®102) up to 100:1, depending on type of equipment and application procedure used (see manufacturer's detailed instructions) will normally protect the surface from flash rust for 48 hours or more -- providing the surface remains dry -- and will remove virtually all loosely adhered surface contaminants, such as chlorides, sulfates, and other debris.

In a dry ambient setting a 100:1 mixture may be adequate. Note, however, that higher levels of surface contamination (e.g., chlorides and other soluble salts) will require higher concentrations of HoldTight®102 at a given level of ambient air humidity

When humidity is minimal, and the surfaces are not highly contaminated, HoldTight®102 has been effective in dilutions up to 250:1.

For use in any water or wet abrasive blast system with a 50 (water):1 (additive) injection system, pour HoldTight®102 undiluted into the inhibitor reservoir. Positively interlocked injector pumps (PIIP) will automatically provide a 50:1 ratio in the blasting water. To achieve a 100:1 mixture in the blast water in such systems, simply dilute HoldTight®102 with water 1:1 prior to pouring into the inhibitor reservoir. If no injection system is available, dilute HoldTight®102 with water as required prior to use.

Non-potable water (e.g., Aplant® water) or any water with high levels of salt contamination will interfere with the performance of HoldTight 102 by re-contaminating the surface, causing flash rusting.

WARNING STATEMENT

CAUTION: May cause eye irritation.

PRECAUTIONARY MEASURES

Avoid contact with eyes. Avoid prolonged breathing of mist or vapor. Wash thoroughly after handling.

FIRST AID

- INGESTION:** None considered necessary
- INHALATION:** If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.
- EYE CONTACT:** Flush eyes with water several times. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention if irritation persists.
- SKIN CONTACT:** Wash skin with soap and water. Get medical attention if skin irritation develops or persists.
- FIRE:** In case of fire, use water, foam, dry chemical or CO₂.

CHEMICAL/COMMON NAME

Proprietary Formulated Amine Compound
Non-Hazardous Materials

RANGE IN %

25.00
75.00

HMIS

Health: 1 Reactivity: 0
Flammability: 0 Special: -

NFPA

Health: 1 Reactivity: 0
Flammability: 0 Special: -

DOT Proper Shipping Name: N.A., NOT REGULATED

DOT Hazardous Class: N.A.

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues of other materials stored in them. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

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