HMIS RATINGS
Health Hazard: 3
Flammability Hazard: 1
Reactivity Hazard: 2

Willert Item Nos: 392004, 580064
Issue Date: 3/25/11
Supersedes: n/a

MATERIAL SAFETY DATA SHEET

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	**TY-D-BOL Bleach Tab**
CHEMICAL NAME:	1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-
CAS NUMBER:	87-90-1
SYNONYMS:	Trichloroisocyanuric acid; Trichloro-s-triazinetrione
CHEMICAL FORMULA:	$C_3N_30_3C_{13}$

DISTRIBUTOR'S NAME	:	Willert Home Products	
AND	:	4044 Park Avenue	Telephone
ADDRESS	:	St. Louis MO 63110	(1-314-772-2822)

24-HOUR EMERGENCY PHONE: CHEMTREC 1-800-424-9300

II. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NUMBER / NAME
87-90-1 1,3,5-trichloro-1,3,5-Triazine-2,4,6(1H,3H,5H)-trione

EXPOSURE LIMITS	**PERCENTAGE**	
PEL: Not Established	VOL	ND
TLV: Not Established	WT	54-56%

COMMON NAMES:
TRICHLOROISOCYANURIC ACID
TRICHLORO-S-TRIAZINETRIONE

CAS NUMBER / NAME
108-78-1 2,4,6-Triamino-1,3,5-Triazine

EXPOSURE LIMITS	**PERCENTAGE**	
AIHA WEEL (United States, 1/2007)	VOL	ND
TWA: 10 mg/m3 8 hour(s), Form: Inhalable	WT	21-23%
TWA: 5 mg/m3 8 hour(s), Form: Respirable		

COMMON NAMES:
MELAMINE

CAS NUMBER / NAME
13397-24-5 Calcium Sulfate dihydrate

EXPOSURE LIMITS	**PERCENTAGE**	
PEL: TWA 15 mg/m3 (total)	VOL	ND
TWA 5 mg/m3 (resp.)	WT	21-23%

COMMON NAMES:
Gypsum

CAS NUMBER / NAME

10043-35-3 Boric Acid

EXPOSURE LIMITS	**PERCENTAGE**	
ACGIH TWA: 2 mg/m3 (inhalable)	VOL	ND
ACGIH STEL: 6 mg/m3 (inhalable)	WT	0-2%

COMMON NAMES:

OrthoBoric Acid

Boracic Acid

III. HEALTH HAZARD INFORMATION

ROUTES OF EXPOSURE

INHALATION:

Breathing dust or fumes is expected to be a primary route of exposure and may produce throat and respiratory tract irritation.

SKIN: Dermal contact is expected to be a primary route of exposure and can cause skin irritation which may result in corrosion if not promptly removed. Not considered a sensitizing agent.

EYE CONTACT:

May result in corrosion to the eyes. Dust or vapors may cause irritation and tearing.

INGESTION:

Will result in burning of mouth, throat and esophagus, abdominal distress and severe irritation, possible corrosion of the digestive tract.

EFFECTS OF OVEREXPOSURE

ACUTE:

May be severely irritating or corrosive to eyes and skin and may cause respiratory and gastrointestinal tract irritation.

CHRONIC:

No known chronic effects.

IV. EMERGENCY AND FIRST AID PROCEDURES

EYES: OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN SEEK MEDICAL ATTENTION. IMMEDIATELY flush eyes with large amounts of water for at least 15 minutes, forcibly holding lids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within one (1) minute is essential to achieve maximum effectiveness. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN: Immediately brush off excess chemical and flush with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. GET MEDICAL ATTENTION.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water, (if available, give

several glasses of milk). If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN:

Probable mucosal damage may contraindicate the use of gastric lavage.

V. Fire-Fighting Measures

FLASH POINT: Not applicable AUTOIGNITION TEMPERATURE: Not applicable

FLAMMABLE LIMITS IN AIR, % BY VOLUME – UPPER: Not applicable
LOWER: Not applicable

FIRE AND EXPLOSION HAZARDS:

This product, if heated by an outside source to temperatures above 225°C(437°F), will undergo vigorous self-sustaining decomposition with the evolution of heat and dense noxious gases. In addition, when in contact with another combustible material, this product will increase the burning rate of the combustible material. When ignited, will burn with the evolution of noxious chlorine containing gases.

EXTINGUISHING MEDIA:

In case of fire or smoke call the fire department. Do not attempt to extinguish the fire without a self contained breathing apparatus (SCBA). Do not let the fire burn. Flood with copious amounts of water. Do not use ABC or other dry chemical extinguishers since there is the potential for a violent reaction.

SPECIAL FIRE FIGHTING PROCEDURES:

Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Using a 10% solution of sodium carbonate, thoroughly decontaminate firefighting equipment including all fire fighting wearing apparel after the incident.

UNUSUAL FIRE AND EXPLOSION HAZARD:

Nitrogen trichloride can be generated slowly by the reaction of small quantities of water with a high concentration of this product. Nitrogen trichloride can present an explosion hazard.

Immediately after a fire has been extinguished, check for wet or damp material. Any spilled material from burned or broken containers should be assumed contaminated. Neutralize to a non-oxidizing material for safe disposal. Do not attempt to re-close broken containers, even for movement to the disposal area. They should be left open to disperse any nitrogen trichloride that may form.

Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. If the plastic liner of the container is damaged or the material is damp, the material should be neutralized to a non-oxidizing material for safe disposal.

Bulging containers require extreme care. Contact the fire department.

SENSITIVITY TO MECHANICAL IMPACT:

Not sensitive.

SENSITIVITY TO STATIC DISCHARGE:

Not sensitive

VI. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Follow protective measures indicated in the Special Protection Section of the MSDS.

Contain spilled material. Any spillage should be cleaned up as soon as possible. DO NOT add water to spilled material. Using clean, dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean, dry containers for disposal. DO NOT close drums containing wet or damp material. They should be left open to disperse any nitrogen trichloride that may form. DO NOT transport wet or damp material.

Keep product out of sewers, watersheds and water systems. Do not contaminate water, food, or feed by storage or disposal.

VII. HANDLING AND STORAGE

HANDLING PRECAUTIONS: Do not get into eyes, on skin, on clothing. Wear goggles or face shield and rubber gloves when handling. Avoid breathing dust, or fumes. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

NEVER add water to product. Always add product to large quantities of water. Use clean, dry utensils. DO NOT add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter, or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases, and possible fire and explosion.

Vapor space in a closed container may contain a slight amount of chlorine gas and compounds from decomposition of the product.

STORAGE: Store in original container and in a dry area where temperatures do not exceed 125°F (52°C) for 24 hours. Do not allow water to get into container and keep off wet floors. Do not contaminate water, food or feed by storage or disposal.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY:

NIOSH/MSHA approved respirator, following manufacturer's recommendations, should be used as a precautionary measure where airborne contaminants may occur. (OSHA 1910.134).

EYE:

Wear chemical safety goggles (ANSI Z87.1).

GLOVES:

Wear chemical resistant gloves.

OTHER CLOTHING AND EQUIPMENT:

Emergency shower and eyewash facilities should be in close proximity. (ANSI Z358.1). Launder contaminated clothing and clean protective equipment before reuse.

VENTILATION REQUIREMENTS:

General room ventilation plus local exhaust at points of emission to maintain exposure below TLV(s).

IX. PHYSICAL AND CHEMICAL PROPERTIES

MELTING POINT: 225-230°C (437-446°F) (decomposes)

SOLUBILITY @ 25°C: 0.6g/100g H20

APPEARANCE AND ODOR: White tablets, slight chlorine odor

ODOR THRESHOLD (ppm): No data

PH (1% solution @ 25°C): 3 – 3.5

COEFFICIENT WATER/OIL DISTRIBUTION: No data

X. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

INCOMPATIBILITY:

This material is a strong oxidizing agent. The preparation of concentrated solutions or slurries is not recommended. Avoid contact with water on concentrated material in the container. Also avoid contact with easily oxidizable organic material; ammonia, urea, or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; calcium hypochlorite; alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS:

Chlorine containing gases can be produced.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:

Does not occur.

XI. TOXICOLOGICAL INFORMATION

Data from studies and from the scientific literature on trichloroisocyanuric acid indicate the following:

Oral LD50	(rat)	600 mg/kg. Slightly Toxic
Dermal LD50	(rabbit)	7600 mg/kg. Practically Nontoxic
Eye Irritation	(rabbit, 24 hr)	Corrosive
Skin Irritation	(rabbit, 24 hr)	Corrosive
DOT Skin Corrosion	(rabbit, 4 hr)	Not Corrosive

Eye and nose irritation, labored breathing, increased adrenal weights and blood chemistry parameter changes were noted following repeated inhalation (4 weeks) of dust of this material rats.

XII. ECOLOGICAL INFORMATION

Ecotoxicity Data for trichloroisocyanuric acid:

48-hr LC50	Daphnia Magna	0.21 mg/1,	Highly Toxic
96-hr LC50	Bluegill Sunfish	0.4 mg/1,	Highly Toxic
96-hr LC50	Rainbow Trout	0.24 mg/1,	Highly Toxic
Oral LC50	Mallard Duck	1021 mg/kg,	Slightly Toxic
8-Day Dietary LC50	Mallard Duck	>10000 ppm,	Practically Nontoxic
8-Day Dietary LC50	Bobwhite Quail	>10000 ppm,	Practically Nontoxic

This product is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

XIII. DISPOSAL CONSIDERATIONS

If these wastes cannot be disposed of by use according to label instructions, contact your state or local Solid Waste Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Product disposal: Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction and fire. Do not transport damp or wet material. Neutralize materials to a non-oxidizing state for safe disposal.

XIV. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME:	Trichloroisocyanuric Acid Dry, Mixture Consumer Commodity Hazard Class ORM-D (Limited Quantity Exception)
DOT HAZARD CLASS:	5.1
DOT IDENTIFICATION NUMBER:	UN2468
PACKING GROUP:	II
DOT HAZARDOUS SUBSTANCE:	Not applicable
DOT MARINE POLLUTANT:	Not applicable

CANADIAN REGULATIONS:

TDG SHIPPING NAME:	Trichloroisocyanuric Acid Mixture, Dry
TDG PRIMARY CLASS:	5.1
TDG SUBSIDIARY CLASS (ES):	NA
TDG PRODUCT I.D. NUMBER:	UN2468
TDG PACKING GROUP:	II
RL FOR DIVISION 9.2:	Not applicable

XV. REGULATORY INFORMATION

SARA/TITLE III HAZARD CATEGORIES (See Section X)

Immediate (ACUTE) Health:	YES	Reactive Hazard:	YES
Delayed (Chronic) Health:	NO	Sudden Release of Pressure:	NO
Fire Hazard:	YES		

All components of this product that are required to be on the TSCA Inventory are listed on the inventory.

Not listed as carcinogen – IARC, NTP, OSHA

WHMIS CLASSIFICATION C, D2B, E, F

Listed On (List Legend Below):
12 16
LIST LEGEND
12 PA HAZARDOUS SUBSTANCE 16 NJ WORKPLACE HAZ SUBSTANCE LIST

XVI. OTHER INFORMATION

HMIS HAZARD RATINGS

HEALTH HAZARD 3 FIRE HAZARD 1 REACTIVITY 2
Based on the National Paint & Coating Association HMIS rating system.

OSHA Standard 29CFR 1910. 1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section XV. If the word "Yes" appears next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details.

ADDITIONAL CONTACT INFORMATION

For additional Non-Emergency health, safety, or environmental information telephone (314) 772-2822, or write to :

Willert Home Products
Customer Service Department
4044 Park Avenue
St. Louis, Missouri 63110
www.willert.com

For Emergencies : 24 HOUR EMERGENCY PHONE : CHEMTREC 1-800-424-9300

CAS = Chemical Abstract Service Number
PEL = OSHA Permissible Exposure Limit
TLV = ACGIH Threshold Limit Value, Current
ND = No relevant information found or not available
CORP = Corporate Exposure Limit
NA = Not Applicable

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty, or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.