



Material Safety Data Sheet

Issue Date: 24-JUN-2009
Supersedes: 11-SEP-2008

SPECTRUS OX105

1 Identification

Identification of substance or preparation
SPECTRUS OX105

Product Application Area
Biocide

Company/Undertaking Identification
GE Betz, Inc.
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Emergency Telephone
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Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 24-JUN-2009

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

Severe irritant to the skin. Potential skin sensitizer. Corrosive to the eyes. Irritation of the upper respiratory tract. Prolonged exposure may cause dizziness and headache.

DOT hazard: Oxidizer
Odor: Chlorine; Appearance: Off-White To Yellow, Tablets

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: Flood with water. Use of CO2 or foam may not be effective.

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; Severe irritant to the skin. Potential skin sensitizer.

ACUTE EYE EFFECTS:

Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:

Primary route of exposure;Irritation of the upper respiratory

tract. Prolonged exposure may cause dizziness and headache.

INGESTION EFFECTS:

May cause severe irritation or burning of mouth, throat, and gastrointestinal tract with severe chest and abdominal pain, nausea, vomiting, diarrhea, lethargy and collapse. Possible death when ingested in very large doses.

TARGET ORGANS:

Prolonged or repeated exposures may cause toxicity to the lung.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

Inhalation of dust and/or vapors may cause eye, nose, throat and respiratory tract irritation.

3 Composition / information on ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation. This product is subject to the Pennsylvania and New Jersey Worker and Community Right to Know Law.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
87-90-1	TRICHLORO-S-TRIAZINETRIONE Oxidizer; corrosive (eyes); toxic (by ingestion); irritant (skin and respiratory)	60-100
7647-15-6	SODIUM BROMIDE Irritant	7-13
10043-35-3	BORIC ACID Irritant; potential kidney toxin	0.5-1.5

NON-HAZARDOUS INGREDIENTS:

CAS#	CHEMICAL NAME
	NONE

4 First-aid measures

SKIN CONTACT:

Wash thoroughly with soap and water. Remove contaminated clothing. Thoroughly wash clothing before reuse. Get medical attention if irritation develops or persists.

EYE CONTACT:

URGENT! Immediately flush eyes with water for 30 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.

INHALATION:

Remove to fresh air. If breathing is difficult, give oxygen. If

breathing has stopped, give artificial respiration. Get immediate medical attention.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 2-8 fluid ounces (60-240 mL) of milk or water.

NOTES TO PHYSICIANS:

Material is corrosive. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

5 Fire-fighting measures

FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

EXTINGUISHING MEDIA:

Flood with water. Use of CO2 or foam may not be effective.

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen, hydrogen chloride, and hydrogen bromide

FLASH POINT:

> 200F > 93C P-M(CC)

MISCELLANEOUS:

Oxidizer

UN 2468;Emergency Response Guide #141

6 Accidental release measures

PROTECTION AND SPILL CONTAINMENT:

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

DISPOSAL INSTRUCTIONS:

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - Dispose of in approved pesticide facility or according to label instructions.

7 Handling and storage

HANDLING:

Oxidizer. Avoid all contact with reducing agents, oils, greases, organics and acids.

STORAGE:

Keep containers closed when not in use. Keep dry. Do not store at high temperature or near oxidizables or combustibles. Shelf life 360 days.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

TRICHLORO-S-TRIAZINETRIONE

PEL (OSHA): 0.5 PPM(STEL-1 PPM) AS CHLORINE
TLV (ACGIH): 0.5 PPM(STEL-1 PPM) AS CHLORINE

SODIUM BROMIDE

PEL (OSHA): NOT DETERMINED
TLV (ACGIH): NOT DETERMINED

BORIC ACID

PEL (OSHA): NOT DETERMINED
TLV (ACGIH): TWA = 2 MG/M3; STEL = 6 MG/M3; A4 (As Borate compounds, Inorganic)

ENGINEERING CONTROLS:

Adequate ventilation to maintain air contaminants below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Use protective equipment in accordance with 29CFR 1910 Subpart I

RESPIRATORY PROTECTION:

A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.
If air-purifying respirator use is appropriate, use a respirator with acid gas cartridges and dust/mist prefilters.

SKIN PROTECTION:

viton gloves-- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles

9 Physical and chemical properties

Density	45.000 lb/cu.ft	Vapor Pressure (mmHG)	< 1.0
Freeze Point (F)	NA	Vapor Density (air=1)	> 1.00
Freeze Point (C)	NA		
Viscosity(cps 70F,21C)	NA	% Solubility (water)	~ 1.0

Odor	Chlorine
Appearance	Off-White To Yellow
Physical State	Tablets
Flash Point	P-M(CC) > 200F > 93C
pH 1% Sol. (approx.)	3.2
Evaporation Rate (Ether=1)	< 1.00
Percent VOC:	0.0

NA = not applicable ND = not determined

10 Stability and reactivity

CHEMICAL STABILITY:

Stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:

No known hazardous reactions.

INCOMPATIBILITIES:

Decomposes dry(350-475F); Wet(75F) with release of chlorine. Reacts with oxidizers.

DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen, hydrogen chloride, and hydrogen bromide

11 Toxicological information

Oral LD50 RAT: 840 mg/kg
NOTE - Supplier Estimated
Dermal LD50 RABBIT: >5,000 mg/kg
NOTE - Supplier Estimated
Skin Irritation Score RABBIT: CORROSIVE
NOTE - Supplier Estimated; 4hr test
Eye Irritation Score RABBIT: CORROSIVE
NOTE - Supplier Estimated; 24 hour test

12 Ecological information

AQUATIC TOXICOLOGY

Bluegill Sunfish 96 Hour Static Acute Bioassay
LC50= .4 mg/L
Daphnia magna 48 Hour Static Acute Bioassay
LC50= .21 mg/L
Rainbow Trout 96 Hour Static Acute Bioassay
LC50= .24 mg/L

BIODEGRADATION

BOD-28 (mg/g): 0
BOD-5 (mg/g): 0
TOC (mg/g): 120

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
D001=Ignitable.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

14 Transport information

DOT HAZARD: Oxidizer
PROPER SHIPPING NAME: TRICHLOROISOCYANURIC ACID DRY
5.1, UN 2468, PG II
DOT EMERGENCY RESPONSE GUIDE #: 141
Note: Some containers may be DOT exempt, please check BOL for exact container classification

15 Regulatory information

TSCA:

This is an EPA registered biocide and is exempt from TSCA inventory requirements.

CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

No regulated constituent present at OSHA thresholds

FIFRA REGISTRATION NUMBER:

935-78-3876

NSF Registered and/or meets USDA (according to 1998 Guidelines):

Registration number: 139018

Category Code(s):

- G5 Cooling and retort water treatment products - all food processing areas
- G7 Boiler treatment products - all food processing areas/nonfood contact

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic);Fire;Reactive

SARA SECTION 302 CHEMICALS:

No regulated constituent present at OSHA thresholds

SARA SECTION 313 CHEMICALS:

No regulated constituent present at OSHA thresholds

CALIFORNIA REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):

No regulated constituents present

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 Other information

HMIS vII		CODE TRANSLATION
Health	3	Serious Hazard
Fire	1	Slight Hazard
Reactivity	2	Moderate Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	B	Goggles,Gloves

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

CHANGE LOG

EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
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MSDS status: 01-DEC-1997
21-JAN-1998 15
12-MAY-1998 ;EDIT:9
22-MAR-2001 15
15-JAN-2002 15
16-APR-2007 2,4,5,7,8,10,15
11-SEP-2008 8
24-JUN-2009 10,15

** NEW **
01-DEC-1997
21-JAN-1998
12-MAY-1998
22-MAR-2001
15-JAN-2002
16-APR-2007
11-SEP-2008