



Material Safety Data Sheet

Issue Date: 20-AUG-2012
Supersedes: 03-FEB-2012

OPTISPERSE HP3100

1 Identification

Identification of substance or preparation
OPTISPERSE HP3100

Product Application Area
Water based internal boiler treatment chemical.

Company/Undertaking Identification
GE Betz, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355-3300, F 215 953 5524

Emergency Telephone
(800) 877-1940

Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 20-AUG-2012

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

Corrosive to skin. Corrosive to the eyes. Mists/aerosols may cause irritation to upper respiratory tract.

DOT hazard: Corrosive to skin
Odor: None; Appearance: Colorless To Light Yellow, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media: dry chemical, carbon dioxide, foam or water

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:
Primary route of exposure; Corrosive to skin.

ACUTE EYE EFFECTS:
Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:
Mists/aerosols may cause irritation to upper respiratory tract.

INGESTION EFFECTS:

May cause gastrointestinal irritation.

TARGET ORGANS:

No evidence of potential chronic effects.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

May cause redness or itching of skin, irritation, and/or tearing of eyes (direct contact).

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%)
1310-73-2	SODIUM HYDROXIDE Corrosive; toxic (by ingestion)	3-7

NON-HAZARDOUS INGREDIENTS:

CAS#	CHEMICAL NAME
7732-18-5	WATER
68915-31-1	SODIUM HEXAMETAPHOSPHATE

4 First-aid measures

SKIN CONTACT:

URGENT! Wash thoroughly with soap and water. Remove contaminated clothing. Get immediate medical attention. Thoroughly wash clothing before reuse.

EYE CONTACT:

URGENT! Immediately flush eyes with plenty of low-pressure water for at least 20 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.

INHALATION:

If nasal, throat or lung irritation develops - remove to fresh air and get 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:

No special instructions

5 Fire-fighting measures

FIRE FIGHTING INSTRUCTIONS:

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

EXTINGUISHING MEDIA:

dry chemical, carbon dioxide, foam or water

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of phosphorus

FLASH POINT:

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

MISCELLANEOUS:

Corrosive to skin

UN 3266;Emergency Response Guide #154

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 - Incinerate or land dispose in an approved landfill.

7 Handling and storage

HANDLING:

Alkaline. Corrosive(Eyes). Do not mix with acidic material.

STORAGE:

Shelf life = 180 days. Keep containers closed when not in use. Protect from freezing. If frozen, thaw and mix completely prior to use. Store below 100F (38C).

8 Exposure controls / personal protection

EXPOSURE LIMITS**CHEMICAL NAME**

SODIUM HYDROXIDE

PEL (OSHA): 2 MG/M3

TLV (ACGIH): TWA (Ceiling) = 2 MG/M3

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 any of the following particulate respirators: N95, N99, N100, R95,

R99, R100, P95, P99 or P100.

SKIN PROTECTION:

gauntlet-type rubber, butyl or neoprene gloves, chemical resistant apron -- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles, face shield

9 Physical and chemical properties

Spec. Grav. (70F, 21C)	1.113	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	21	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-6		
Viscosity (cps 70F, 21C)	12	% Solubility (water)	100.0

Odor	None
Appearance	Colorless To Light Yellow
Physical State	Liquid
Flash Point	P-M(CC) > 200F > 93C
pH As Is (approx.)	> 13.0
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:

Contact with strong acids may cause a violent reaction releasing heat.

INCOMPATIBILITIES:

May react with acids or strong oxidizers.

DECOMPOSITION PRODUCTS:

oxides of phosphorus

11 Toxicological information

Oral LD50 RAT:	2800 mg/kg
NOTE - Calculated value according to GHS additivity formula	
Dermal LD50 RABBIT:	>5000 mg/kg
NOTE - Calculated value according to GHS additivity formula	
Skin Irritation Score RABBIT:	Corrosive
NOTE - GHS Category 1B skin corrosive	
Eye Irritation Score RABBIT:	Corrosive
NOTE - GHS Category 1 causes serious eye damage	

12 Ecological information

AQUATIC TOXICOLOGY

Daphnia magna 48 Hour Static Renewal Bioassay (pH adjusted)

LC50= 3300; No Effect Level= 1250 mg/L
Fathead Minnow 96 Hour Static Renewal Bioassay (pH adjusted)
LC50= 5020; No Effect Level= 2750 mg/L

BIODEGRADATION

Product contains only inorganics that are not subject to typical biological degradation. Assimilation by microbes may occur in waste treatment or the environment.

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
D002=Corrosive(pH).

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

Transportation Hazard: Corrosive to skin
DOT: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(SODIUM HYDROXIDE SOLUTION)
8, UN3266, PG III, RQ
DOT EMERGENCY RESPONSE GUIDE #: 154
Note: Some containers may be DOT exempt, please check BOL for exact container classification
IATA: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(SODIUM HYDROXIDE SOLUTION)
8, UN3266, PG III
IMDG: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(SODIUM HYDROXIDE SOLUTION)
8, UN3266, PG III

15 Regulatory information

TSCA:

All components of this product are included on or are in compliance with the U.S. TSCA regulations.

CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

2,158 gallons due to SODIUM HYDROXIDE;

FOOD AND DRUG ADMINISTRATION:

ALL ingredients in this product are authorized in 21CFR173.310 for use as boiler water additives where the steam may contact food.

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

Registration number: 146608

Category Code(s):

- G6 Boiler treatment products - all food processing areas/food contact
- G5 Cooling and retort water treatment products - all food processing areas

SARA SECTION 312 HAZARD CLASS:

Immediate(acute)

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	0	Minimal Hazard
Reactivity	0	Minimal Hazard
Special	CORR	DOT corrosive
(1) Protective Equipment	D	Goggles,Face Shield,Gloves,Apron

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

CHANGE LOG

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
	-----	-----	-----
MSDS status:	07-JUN-2001		** NEW **
	13-MAY-2002	4,7	07-JUN-2001
	26-MAY-2006	8	13-MAY-2002
	23-FEB-2010	4,5,7,8,10,14	26-MAY-2006
	02-NOV-2011	11	23-FEB-2010
	03-FEB-2012	2,4,5,8,14,16	02-NOV-2011
	20-AUG-2012	15	03-FEB-2012