



# SAFETY DATA SHEET

## OPTISPERSE\* ADJ5050

### 1. Product and Company Identification

**Material name** OPTISPERSE ADJ5050  
**Version #** 1.1  
**Revision date** 04/06/2013  
**Supersedes date** 25/01/2012  
**Chemical description** Alkaline solution  
**CAS #** Mixture  
**Product application** Internal boiler treatment

#### 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

### 2. Hazards Identification

### 3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Sodium hydroxide	1310-73-2	40 - 60

  

Non-hazardous components	CAS #
Water	7732-18-5

### 4. First Aid Measures

#### First aid procedures

**Eye contact** Remove contact lenses. Keep eyelids apart.  
Flush immediately with plenty of running water.  
Continue rinsing for at least 10 minutes.  
Seek medical attention.

**Skin contact** Remove contaminated clothing.  
Wash immediately with plenty of water.  
Continue rinsing for at least 10 minutes.  
Seek medical attention.  
Thoroughly wash clothing before reuse.

**Inhalation** If nasal, throat or lung irritation develops. Remove victim to fresh air and allow to rest. Seek medical attention.

**Ingestion** First rinse mouth with water.  
Do not feed anything by mouth to an unconscious or convulsive victim.  
Immediately give 1-2 glasses of water, if victim is fully conscious.  
Do NOT induce vomiting!  
Seek medical attention.

## Notes to physician

Corrosive material It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

## 5. Fire Fighting Measures

### Extinguishing media

**Suitable extinguishing media** Carbon dioxide, dry chemicals, foam, water spray (fog).

**Unsuitable extinguishing media** None.

### Protection of firefighters

**Specific hazards arising from the chemical** None known.

**Protective equipment and precautions for firefighters** Fire fighters should wear positive pressure self-contained breathing apparatus.

**Fire fighting equipment/instructions** Not available.

## 6. Accidental Release Measures

**Personal precautions** Wear protective clothing, gloves and safety goggles.

**Environmental precautions** Prevent from entering sewers or the immediate environment. Accidental release of large quantities into the aquatic environment may harm aquatic organisms.

**Methods for cleaning up** Absorb onto inert material and dispose of according to Hazardous Waste Regulations. Remove small spills with plenty of water. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

## 7. Handling and Storage

**Handling** Alkaline.  
corrosive to skin corrosive to the eyes  
Do not mix with acidic material.

**Storage** Store containers closed when not in use.  
Do not freeze.  
If frozen, thaw completely and mix thoroughly prior to use.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m <sup>3</sup>

**Engineering controls** Adequate ventilation to maintain air contaminants below exposure limits.

### Personal protective equipment

**Eye / face protection** Splash proof chemical goggles.  
Face shield.

**Skin protection** Chemical resistant apron.

**Respiratory protection** In case of insufficient ventilation, use face mask with breathing filter, type: P2  
If air-purifying respirator use is appropriate, use any of the following particulate respirators: N95, N99, N100, R95, R99, R100, P95, P99 or P100.

**General hygiene considerations** Wash hands after handling.

## 9. Physical & Chemical Properties

### Appearance

**Physical state** Liquid

**Color** Colorless

**Odor** Mild

Odor threshold	Not available.
pH in aqueous solution	13.4 (5% SOL.)
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21.1 °C)
Vapor density	< 1 (Air = 1)
Boiling point	Not available.
Melting point/Freezing point	50 °F (10 °C)
Solubility (water)	100 %
Specific gravity (70°F, 21°C)	1.5271
Flash point	> 200 °F (> 93 °C) SETA(CC)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	< 1 (Ether = 1)
Viscosity	124 cps
Viscosity temperature	70 °F (21.1 °C)
Percent volatile	0 (Estimated)
Pour point	55 °F (12.8 °C)

## 10. Chemical Stability & Reactivity Information

Chemical stability	Stable.
Conditions to avoid	None known.
Incompatible materials	Avoid contact with strong acids. Contact with strong acids may cause a violent reaction releasing heat.
Hazardous decomposition products	None known.

## 11. Toxicological Information

### Toxicological data

Product	Species	Test Results
OPTISPERSE ADJ5050 (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	RABBIT	2700 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	RAT	> 0.16 mg/L, 4 Hour
<i>Oral</i>		
LD50	RAT	280 mg/kg, (Calculated according to GHS additivity formula (Category 3))

Components	Species	Test Results
Sodium hydroxide (CAS 1310-73-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	RABBIT	1350 MG/KG
<i>Oral</i>		
LD50	RAT	140 MG/KG

**Chronic effects** Prolonged or repeated contact may cause tissue necrosis, dermatitis and/or skin sensitisation.

## 12. Ecological Information

### Ecotoxicity

Product	Species	Test Results
OPTISPERSE ADJ5050 (CAS Mixture)		
	0% Mortality Fathead Minnow	5000 mg/L, 96 hour, (pH adjusted) 50 mg/L, 96 hour
	10% Mortality Ceriodaphnia	1785 mg/L, 48 hour, (pH adjusted)
	100% Mortality Fathead Minnow	200 mg/L, 96 hour
	45% Mortality Fathead Minnow	10000 mg/L, 96 hour, (pH adjusted)
	LC50 Ceriodaphnia	2480 mg/L, 48 hour, (pH adjusted)
Crustacea	100% Mortality Daphnia magna	500 mg/L, 48 hour
	5% Mortality Daphnia magna	5000 mg/L, 48 hour, (pH adjusted) 100 mg/L, 48 hour
Other	0% Mortality Rainbow Trout	10000 mg/L, 96 hour, (pH adjusted)

### Persistence and degradability

This product, being inorganic and in its highest oxidation state, has no COD,BOD or TOC.

## 13. Disposal Considerations

### Disposal instructions

Incinerate or bury in approved landfill. Please be advised, however, that national and local requirements on waste disposal may be more restrictive. Consult national and local regulations regarding the proper disposal of this material. Prevent from entering sewers or the immediate environment. According to Hazardous Waste Regulations.

Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

### Contaminated packaging

Dispose of in a safe manner, in accordance with local regulations. According to Hazardous Waste Regulations.

Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

## 14. Transport Information

### DOT

#### Basic shipping requirements:

UN number	UN1824
Proper shipping name	SODIUM HYDROXIDE SOLUTION, RQ
Hazard class	8
Packing group	II

#### Additional information:

ERG code	154
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### TDG

UN number	UN1824
UN proper shipping name	SODIUM HYDROXIDE SOLUTION
Hazard class	8
Packing group	II
ERG code	154

### IATA

UN number	UN1824
UN proper shipping name	SODIUM HYDROXIDE SOLUTION
Transport hazard class(es)	8
Packing group	II

### IMDG

UN number	UN1824
UN proper shipping name	SODIUM HYDROXIDE SOLUTION
Transport hazard class(es)	8
Packing group	II

DOT



IATA; IMDG; TDG



## 15. Regulatory Information

### US federal regulations

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

None listed.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

### CERCLA (Superfund) reportable quantity

Sodium hydroxide: 1000 lbs

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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<b>SARA 302 Extremely hazardous substance</b>	No
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<b>SARA 311/312 Hazardous chemical</b>	No
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### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

<b>Food and drug administration</b>	ALL ingredients in this product are authorized in 21CFR173.310 for use as boiler water additives where the steam may contact food.
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<b>NSF Registered and/or meets USDA (according to 1998 guidelines):</b>	Registration No. - 140698 Category Code(s): G1 Water Treatment Products - General G5 Cooling and retort water treatment products G6 Boiler treatment products, steam line products - food contact
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### State regulations

**US - New Jersey RTK - Substances: Listed substance**

Sodium hydroxide (CAS 1310-73-2)	Listed.
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**US. Massachusetts RTK - Substance List**

Sodium hydroxide (CAS 1310-73-2)	
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**US. Pennsylvania RTK - Hazardous Substances**

Sodium hydroxide (CAS 1310-73-2)

Listed.

**US. Rhode Island RTK**

Sodium hydroxide (CAS 1310-73-2)

**16. Other Information**

**HMIS® ratings**

Health: 3  
Flammability: 0  
Physical hazard: 1  
Personal protection: D

**NFPA ratings**

Health: 3  
Flammability: 0  
Instability: 1  
Special hazards: CORR

**This data sheet contains changes from the previous version in section(s):**

Composition / Information on Ingredients: Disclosure Overrides  
Toxicological Information: Toxicological Data  
Transport Information: Material Transportation Information

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