



# SAFETY DATA SHEET

## HYPERSPERSE\* MDC714

### 1. Product and Company Identification

**Material name** HYPERSPERSE MDC714  
**Version #** 2.0  
**Revision date** Dec-08-2014  
**Supersedes date** Jul-26-2012  
**Chemical description** Phosphonate in water  
**CAS #** Mixture  
**Product application** Membrane Deposit Control Agent

#### 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

**Emergency overview** Health injuries are not known or expected under normal use. May cause slight irritation to the skin. May cause slight irritation to the eyes.

#### Potential health effects

**Eyes** May cause slight irritation to the eyes.  
**Skin** May cause slight irritation to the skin.  
**Inhalation** May cause irritation to the upper respiratory tract.  
**Ingestion** May cause slight gastrointestinal irritation.

**Medical conditions aggravated by exposure** None known.

### 3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Disodium phosphonate	13708-85-5	2.5 - 10
Sodium chloride	7647-14-5	1 - 2.5
Non-hazardous components	CAS #	
Water	7732-18-5	
[Nitrilotris(methylene)]trisphosphonic acid, sodium salt	20592-85-2	

**Composition comments** 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.

## 4. First Aid Measures

### First aid procedures

<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention immediately.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention immediately. Take off contaminated clothing and wash before reuse.
<b>Inhalation</b>	Move to fresh air. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Get medical attention immediately.
<b>Ingestion</b>	If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. Get medical attention if symptoms occur.

**Notes to physician** No specific antidotes are recommended.

## 5. Fire Fighting Measures

### Extinguishing media

**Suitable extinguishing media** Dry chemical, CO<sub>2</sub>, water spray or regular foam.

### Protection of firefighters

**Protective equipment and precautions for firefighters** Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

### Fire fighting

#### equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

## 6. Accidental Release Measures

### Personal precautions

Wear appropriate protective equipment and clothing during clean-up. Avoid contact with spilled material. See Section 8 of the MSDS for Personal Protective Equipment.

### Environmental precautions

Avoid discharge into drains, water courses or onto the ground. 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.

### Methods for cleaning up

Ventilate the area. Flush with plenty of water. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Spread sand/grit.

## 7. Handling and Storage

### Handling

No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the MSDS for additional personal protection advice when handling this product.

### Storage

Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

No exposure limits noted for ingredient(s).

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.  
Bulk tanks should be vented externally.

### Personal protective equipment

#### Eye / face protection

Chemical goggles are recommended.

#### Skin protection

Wear suitable protective clothing. Chemical resistant gloves. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Chemical resistant apron. Glove selection must take into account any solvents and other hazards present.

#### 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. If air-purifying respirator use is appropriate, use organic vapor cartridges and any of the following particulate respirators: R95, R99, R100, P95, P99 or P100.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

### Appearance

Physical state	Liquid
Color	Colorless to yellow
Odor	Slight
Odor threshold	Not available.
pH (concentrated product)	7.3
pH in aqueous solution	7.8 (5% SOL.)
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Boiling point	215 °F (102 °C)
Melting point/Freezing point	-8 °F (-22 °C)
Solubility (water)	100 %
Specific gravity (70°F, 21°C)	1.42
Flash point	Not applicable.
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	25 cps
Viscosity temperature	70 °F (21 °C)
Percent volatile	0 (Estimated)
Pour point	-3 °F (-19 °C)

## 10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	None known.
Incompatible materials	Water reactive substance. Strong oxidizing substances.
Hazardous decomposition products	Oxides of carbon, nitrogen and phosphorus evolved in fire.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Product	Species	Test Results
HYPERPERSE MDC714 (CAS Mixture)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg

### Carcinogenicity

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

## 12. Ecological Information

### Ecotoxicity

Product	Species	Test Results	
HYPERPERSE MDC714 (CAS Mixture)	LC50	Fathead Minnow	5098 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Fathead Minnow	2000 mg/L, Static Renewal Bioassay, 96 hour
Crustacea	LC50	Daphnia magna	1366 mg/L, Static Renewal Bioassay, 48 hour
	NOEL	Daphnia magna	1000 mg/L, Static Renewal Bioassay, 48 hour
Other	LC50	Rainbow Trout	5464 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Rainbow Trout	4000 mg/L, Static Renewal Bioassay, 96 hour

### Persistence and degradability

No data available

## 13. Disposal Considerations

### Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Waste from residues / unused products

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

### Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

### DOT

Not regulated as dangerous goods.

Some containers may be DOT exempt, please check BOL for exact container classification.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

### TDG

Not regulated as a dangerous good.

## 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, lbs

None listed.

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

#### Hazard categories

Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Formaldehyde	50-00-0	100	500 lbs		

SARA 311/312 Hazardous chemical No

#### 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)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

#### State regulations

##### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0) Listed: January 1, 1988 Carcinogenic.

##### US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

##### US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

##### US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

##### US - Massachusetts RTK - Substance List

Not regulated.

##### US - Pennsylvania RTK - Hazardous Substances

Not regulated.

##### US - Rhode Island RTK

Not regulated.

## 16. Other Information

#### List of abbreviations

NFPA: National Fire Protection Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

#### HMIS® ratings

Health: 1  
Flammability: 0  
Physical hazard: 0  
Personal protection: B

#### NFPA ratings

Health: 2  
Flammability: 0  
Instability: 0

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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

Product and Company Identification: Product and Company Identification  
Composition / Information on Ingredients: Ingredients  
Physical & Chemical Properties: Multiple Properties  
Toxicological Information: Toxicological Data  
Ecological Information: Ecotoxicity  
Transport Information: Material Transportation Information  
HazReg Data: Europe - EU  
GHS: Classification

#### Prepared by

This MSDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).

\* Trademark of General Electric Company. May be registered in one or more countries.