



SAFETY DATA SHEET

FOODPRO* ST8021

1. Product and Company Identification

Material name FOODPRO ST8021
Version # 2.0
Revision date Apr-03-2015
Supersedes date Aug-06-2012
CAS # Mixture
Product application Corrosion inhibitor/Deposit control agent

Company/undertaking identification

GE Betz, Inc.
4636 Somerton Road
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Emergency telephone

(800) 877 1940

2. Hazards Identification

Emergency overview Causes severe skin burns and eye damage. Causes serious eye damage. Suspected of causing cancer. May cause irritation to the respiratory system.

Potential health effects

Eyes Risk of serious damage to eyes.
Skin Causes severe skin burns.
Inhalation Prolonged inhalation may be harmful.
Ingestion May cause severe irritation or burning of the gastrointestinal tract.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Complex organic phosphate ester, free acid	68130-47-2	2.5 - 10
Sodium molybdate	7631-95-0	2.5 - 10
Alkyldimethyl aminoxide	61788-90-7	1 - 2.5
Non-hazardous components	CAS #	
Water	7732-18-5	
2-PROPENOIC ACID POLYMER WITH 2-HYDROXY-3- (2-PROPENYLOXY)-1-PROPANE SULFONIC ACID,SODIUM SALT	78266-09-8	
2-Phosphonobutane-1,2,4-tricarboxylic acid, potassium salt	93858-78-7	
Dipotassium hydrogenorthophosphate	7758-11-4	
Potassium dihydrogen orthophosphate	7778-77-0	

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

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

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.
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Fire fighting

equipment/instructions

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers / tanks with water spray. Move containers from fire area if you can do so without risk.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS.

Environmental precautions

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

Methods for containment

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Methods for cleaning up

Ventilate the contaminated area. Wear appropriate protective equipment and clothing during clean-up.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Storage

Do not freeze. Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the MSDS).

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Sodium molybdate (CAS 7631-95-0)	TWA	0.5 mg/m ³	Respirable fraction.

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

Components	Type	Value
Sodium molybdate (CAS 7631-95-0)	PEL	5 mg/m ³

Biological limit values	No biological exposure limits noted for the ingredient(s).
Engineering controls	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. Eye wash facilities and emergency shower must be available when handling this product.
Personal protective equipment	
Eye / face protection	Chemical goggles and face shield are recommended.
Skin protection	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece. 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.
Hand protection	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	
Physical state	Liquid
Color	Colorless to yellow
Odor	Slight
Odor threshold	Not available.
pH (concentrated product)	6.9
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	25 °F (-4 °C)
Solubility (water)	100 %
Specific gravity (70°F, 21°C)	1.17
Flash point	> 200 °F (> 93 °C) P-M(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	10 cps
Viscosity temperature	70 °F (21 °C)
Percent volatile	0 (Calculated)
Pour point	30 °F (-1 °C)

10. Chemical Stability & Reactivity Information

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Protect from freezing.
Incompatible materials	Strong oxidizing agents.

Hazardous decomposition products Oxides of carbon, nitrogen, phosphorus, and sulphur evolved in fire.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
Sodium molybdate (CAS 7631-95-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhl</i>		
LC50	Rat	> 2.08 mg/l/4h
<i>Oral</i>		
LD50	Rat	4000 mg/kg

Carcinogenicity

ACGIH Carcinogens

Sodium molybdate (CAS 7631-95-0) A3 Confirmed animal carcinogen with unknown relevance to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

12. Ecological Information

Ecotoxicity

Product	Species	Test Results	
FOODPRO ST8021 (CAS Mixture)			
	LC50	Fathead Minnow	215 mg/L, Static Acute Bioassay, 96 hour
	NOEL	Fathead Minnow	115 mg/L, Static Acute Bioassay, 96 hour
Aquatic			
Crustacea	5% Mortality	Daphnia magna	37 mg/L, Static Acute Bioassay, 48 hour
	LC50	Daphnia magna	104 mg/L, Static Acute Bioassay, 48 hour

13. Disposal Considerations

Waste codes The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

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

Not listed.

SARA 311/312 Hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/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).

NSF Registered and/or meets USDA (according to 1998 guidelines):
Registration No. - 141067
Category Code(s):
G5 Cooling and retort water treatment products
G7 Boiler, steam line treatment products - nonfood contact

State regulations

- US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**
1,4-DIOXANE (CAS 123-91-1) Listed: January 1, 1988 Carcinogenic.
Ethylene oxide (oxirane) (CAS 75-21-8) Listed: July 1, 1987 Carcinogenic.
- US - California Proposition 65 - CRT: Listed date/Developmental toxin**
Ethylene oxide (oxirane) (CAS 75-21-8) Listed: August 7, 2009 Developmental toxin.
- US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**
Ethylene oxide (oxirane) (CAS 75-21-8) Listed: February 27, 1987 Female reproductive toxin.
- US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**
Ethylene oxide (oxirane) (CAS 75-21-8) Listed: August 7, 2009 Male reproductive toxin.
- US - Massachusetts RTK - Substance List**
Not regulated.
- US - Pennsylvania RTK - Hazardous Substances**
Not regulated.
- US - Rhode Island RTK**
Not regulated.
- US. New Jersey Worker and Community Right-to-Know Act**
Not listed.
- US. Pennsylvania Worker and Community Right-to-Know Law**
Not listed.

16. Other Information

List of abbreviations

CAS: Chemical Abstract Service Registration Number
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
ACGIH: American Conference of Governmental Industrial Hygienists
NOEL: No Observed Effect Level
STEL: Short Term Exposure Limit
LC50: Lethal Concentration, 50%
TWA: Time Weighted Average
BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
TOC: Total Organic Carbon

IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
LD50: Lethal Dose, 50%
NFPA: National Fire Protection Association

HMIS® ratings

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

NFPA ratings

Health: 1
Flammability: 0
Instability: 0
Special hazards: NONE

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: Physical States
Toxicological Information: Toxicological Data
HazReg Data: North America
GHS: Classification

Prepared by

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

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