



SAFETY DATA SHEET

EMBREAK* 2W901

1. Identification

Product identifier	EMBREAK 2W901
Other means of identification	Not available.
Recommended use	Oil in water emulsion breaker
Recommended restrictions	None known.

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. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.

Label elements

Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store in a closed container. Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

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 SDS for our assessment of the potential hazards of this formulation.
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4. First-aid measures

Inhalation	If symptoms develop move victim to fresh air. Get medical attention if cough or other symptoms develop.
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Skin contact	Wash off with soap and water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops or persists.
Eye contact	Flush eyes with water as a precaution. If irritation develops, seek medical attention.
Ingestion	Do not feed anything by mouth to an unconscious or convulsive victim. Do NOT induce vomiting! Immediately contact a physician. Dilute contents of stomach using 2-8 fluid ounces (60-240ml) of milk or water.

Most important symptoms/effects, acute and delayed Irritant effects.

Indication of immediate medical attention and special treatment needed Dilute contents of stomach using 3-4 glasses milk or water. No specific antidotes are recommended.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Oxides of carbon and nitrogen evolved in fire. Hydrogen chloride gas (HCl).
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Firefighters should wear full protective clothing including self contained breathing apparatus.
General fire hazards	Non flammable liquid

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid inhalation of vapors and spray mists. Please refer also to section no. 8 'Exposure controls' for further information. Wear appropriate protective equipment and clothing during clean-up.
Methods and materials for containment and cleaning up	Ventilate the area. Soak up with inert absorbent material. Place in waste disposal container. Flush with plenty of water. Wet area may be slippery. Spread sand/grit.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Prevent from entering sewers or the immediate environment.

7. Handling and storage

Precautions for safe handling	Normal chemical handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place. Store away from oxidizers.

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).
Appropriate engineering controls	Provide adequate ventilation.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Splash proof chemical goggles.
Skin protection	
Hand protection	Viton gloves -- Wash off after each use. Replace as necessary.
Other	Protective clothing.
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.
Thermal hazards	Not applicable.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance	
Color	Colorless
Physical state	Liquid

Odor	Mild
Odor threshold	Not available.
pH (concentrated product)	4.7
pH in aqueous solution	4.3 (5% SOL.)
Melting point/freezing point	30 °F (-1 °C)
Initial boiling point and boiling range	220 °F (104 °C)
Flash point	> 200 °F (> 93 °C) SETA(CC)
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.03
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	107 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	0 (Estimated)
Pour point	35 °F (2 °C)
Specific gravity	1.03

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not applicable. Hazardous polymerization does not occur.
Conditions to avoid	No special requirement.
Incompatible materials	Avoid contact with strong oxidizers.
Hazardous decomposition products	Oxides of carbon and nitrogen evolved in fire. Hydrogen chloride gas (HCl).

11. Toxicological information

Information on likely routes of exposure

Ingestion	Not classified. May cause slight gastrointestinal irritation.
Inhalation	Not classified. May cause irritation to the respiratory system.
Skin contact	Not classified. May cause irritation.
Eye contact	Not classified. May cause irritation.

Symptoms related to the physical, chemical and toxicological characteristics Prolonged and repetitive exposure, depending on the route(s), may develop transient irritation on skin, eyes, ingestion tract, and/or respiratory tract.

Information on toxicological effects

Acute toxicity Not classified.

Product	Species	Test Results
EMBREAK 2W901 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Skin corrosion/irritation May be irritating to the skin.

Serious eye damage/eye irritation May cause irritation.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization Not classified.

Germ cell mutagenicity No information available.

Carcinogenicity Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure No information available.

Aspiration hazard Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.

Chronic effects No evidence of potential chronic effects.

12. Ecological information

Ecotoxicity

Product	Species	Test Results	
EMBREAK 2W901 (CAS Mixture)			
	LC50	Fathead Minnow	9.8 mg/L, Static Renewal Bioassay, 96 hour
	NOEL	Fathead Minnow	4.9 mg/L, Static Renewal Bioassay, 96 hour
Crustacea	LC50	Daphnia magna	3.6 mg/L, Static Renewal Bioassay, 48 hour
Other	LC50	Rainbow Trout	4.5 mg/L, Static Acute Bioassay, 96 hour
	NOEL	Rainbow Trout	2.4 mg/L, Static Acute Bioassay, 96 hour

Bioaccumulative potential No information available.

Mobility in soil Not available.

Other adverse effects Not available.

Persistence and degradability

- COD (mgO₂/g) 171 (calculated data)

- BOD 5 (mgO₂/g) 2 (calculated data)

- BOD 28 (mgO₂/g) 1 (calculated data)

- Closed Bottle Test (% Degradation in 28 days) 0 (calculated data)

- Zahn-Wellens Test (% Degradation in 28 days) 1 (calculated data)

- TOC (mg C/g) 63 (calculated data)

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	Not Applicable
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	Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

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.

15. Regulatory information

US federal regulations

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

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).

US state regulations

US - Massachusetts RTK - Substance List

Not regulated.

US - Pennsylvania RTK - Hazardous Substances

Not regulated.

US - Rhode Island RTK

Not regulated.

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. California Proposition 65

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

No ingredient listed.

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.

16. Other information, including date of preparation or last revision

Issue date Aug-04-2014

Revision date Aug-04-2014

Version # 1.0

Further information Correction in Section: 14 Correction in Section: 4

List of abbreviations

CAS: Chemical Abstract Service Registration Number
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
EC50: Effect Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
CEN: European Committee for Standardisation
EC-No: European Commission Number
CLP: Regulation on classification, labeling and packaging of substances and mixtures
DSD: Dangerous Substances Directive
VME: Valeur moyenne d'exposition (Time weighted average)
MAK: Maximale Arbeitsplatz-Konzentration
VLE: Valeur limite d'exposition (Short Term Exposure Limit)
TLV: Threshold Limit Value
AGW: Arbeitsplatzgrenzwert (Short term exposure limit)
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
RID: International Rule for Transport of Dangerous Substances by Railway
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.

References: Safety data sheets of raw materials.

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.

Revision Information

Composition / Information on Ingredients: Disclosure Overrides
Physical & Chemical Properties: Multiple Properties
Transport Information: Material Transportation Information
HazReg Data: International Inventories
GHS: Classification

Prepared by

This SDS has been prepared by GE Water & Process Technologies Regulatory Department
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