



Division of Azure Water Services, LLC

Material Safety Data Sheet

Product Name: Redux 525

MSDS #: 25

Effective date: 2/12/2015

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SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

IDENTIFICATION

Product Name Redux 525
Chemical Name Aqueous Blended Deposit Control Agent
Chemical Family
Formula
Synonym

COMPANY IDENTIFICATION

Redux Technology
Division of Azure Water Services, LLC
280 Callegari Drive
West Haven, CT 06516
Phone: 203-933-9071
Fax: 203-933-1751
Email: info@reduxtech.com

EMERGENCY TELEPHONE NUMBER

24 hours a day: CHEMTREC 1-800-424-9300.

Number for non-emergency questions concerning MSDS: 203-933-9071

SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS #	Amount (%W/W)
Water	7732-18-5	~75%
Organic phosphorous compound	Proprietary	~24%
Other ingredients	Not Hazardous	<2%

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SECTION 3 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	Eye and skin irritant. Material may cause burns on exposed tissues. Eye contact may cause corneal injury, which may result in permanent impairment of vision, or even blindness. Prolonged or repeated skin may cause irritation or even a burn.
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POTENTIAL HEALTH EFFECTS	
INGESTION.....	No more than slightly toxic is swallowed. Significant adverse health effects are not expected to develop if only small amounts (less than a mouthful) are swallowed.
INHALATION.....	No information is available
EYE CONTACT.....	Moderately irritating to eyes.
SKIN CONTACT.....	Moderately irritating to skin. No more than slightly toxic if absorbed.

SECTION 4 -- FIRST AID MEASURES

INGESTION	Immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice. Wash heavily contaminated clothing before reuse.
INHALATION	Immediate first aid is not likely to be required. If symptoms occur, remove to fresh air. Remove material from eyes, skin and clothing.
EYE CONTACT	Immediately flush eye with plenty of cool, running water. Remove contact lenses if applicable and continue flushing for at least 15 minutes, holding eyelids apart to ensure thorough rinsing of the entire eye. Get medical attention if irritation persists.
SKIN CONTACT	Immediately flush skin with plenty of cool running water for at least 15 minutes. Wash with soap and water. If irritation develops or persists, get medical attention. Remove contaminated clothing and shoes; wash before reuse.

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SECTION 5 -- FIRE FIGHTING MEASURES

FLASH POINT / METHOD	None / N.A.	FLAMMABLE LIMITS	Not flammable or combustible
EXTINGUISHING MEDIA	Water spray, foam, dry chemical or carbon dioxide.		
SPECIAL FIRE FIGHTING PROCEDURES	Pressure demand self-contained respiratory protection and protective clothing should be worn by fire fighters.		
FIRE AND EXPLOSION HAZARDS	Decomposes in a fire giving off irritant fumes.		

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

RESPONSE TO SPILLS	Absorb with inert material such as vermiculite, shovel into closeable container for disposal. Thoroughly flush residual with water.
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SECTION 7 -- HANDLING AND STORAGE

HANDLING PRECAUTIONS	Wear proper safety equipment. Mix only with water. Follow appropriate tank entry procedures (ANSI Z117) and OSHA Confined Space Regulations.
STORAGE PRECAUTIONS	Store in a cool, dry and well-ventilated place. Keep from freezing. Keep container tightly closed when not in use.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

HYGIENIC PRACTICES	Observe label precautions; use personal protective equipment. Avoid breathing mists or vapors of this product.
ENGINEERING CONTROLS	Facilities using this product must be equipped with an eyewash station. Local Exhaust: None

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PERSONAL PROTECTIVE EQUIPMENT

X	RESPIRATOR	NIOSH/MSHA approved respirator where mists or sprays may be generated.
X	GOGGLES / FACE SHIELD	Chemical splash goggles required; also use face shield if exposure is severe
X	APRON	Required; PVC, Neoprene or Vinyl acceptable
X	GLOVES	Required; use PVC, Neoprene or Nitrile with long gauntlet or protective cuff
X	BOOTS	Rubber

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid	BOILING POINT	> 212° F
ODOR	Slight Odor	FREEZING POINT	< 25° F
pH	Approx. 2.0	VAPOR PRESSURE	Similar to water
SPECIFIC GRAVITY	1.06	VAPOR DENSITY	Similar to water
SOLUBILITY IN WATER	Complete	EVAPORATION RATE	Similar to water

SECTION 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY		STABLE	X		UNSTABLE	
CONDITIONS TO AVOID	Do not mix with anything but water.					
INCOMPATIBILITY	Do not mix with alkalis. Corrosive to aluminum and mild steel					
HAZARDOUS PRODUCTS OF DECOMPOSITION	Carbon monoxide, carbon dioxide, Nitrogen oxides, phosphorous oxides					
POLYMERIZATION		WILL NOT OCCUR	X		MAY OCCUR	
CONDITIONS TO AVOID	Not applicable					

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SECTION 11 -- TOXICOLOGICAL INFORMATION

Oral: Rat LD50 = ~ 5820 mg/kg
 Dermal: Rabbit LD50+ > 12,000 mg/kg, practically nontoxic
 Inhalation: Male Rat, 4 hr LC50 = 7.2 mg/l
 Female Rat, 4 hr LC50 = >10.4
 Eye Irritation: Moderately irritating
 Skin irritation: Mild Irritant

CARCINOGENICITY

	THIS PRODUCT CONTAINS NO KNOWN OR SUSPECTED CARCINOGEN
X	THIS PRODUCT DOES NOT CONTAIN ANY KNOWN OR ANTICIPATED CARCINOGENS ACCORDING TO THE CRITERIA OF THE NTP ANNUAL REPORT ON CARCINOGENS AND OSHA 29 CFR 1910, Z

SECTION 12 -- ECOLOGICAL INFORMATION

BIODEGRADABILITY		CONSIDERED BIODEGRADABLE	X		NOT BIODEGRADABLE
BOD / COD VALUE	Not established				
ECOTOXICITY	Water Flea: 48 hr EC50 = 392 mg/l Rainbow Trout: 96 hr LC50 > 660 mg/l Algae: 96 hr EC50 20 mg/l (Algal growth inhibition is due to ability of this product to complex nutrients, not to toxicity per se)				

SECTION 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD	Product that cannot be used according to the label must be disposed of as a hazardous waste at an approved hazardous waste management facility. Empty containers may be triple rinsed, then offered for recycling or reconditioning; or puncture and dispose of in a sanitary landfill.							
RCRA CLASSIFICATION	Hazardous, corrosive D002							
RECYCLE CONTAINER		YES	X		CODE	2 - HDPE		NO

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SECTION 14 -- TRANSPORT INFORMATION

DOT CLASSIFICATION		HAZARDOUS	x		NOT HAZARDOUS
DESCRIPTION	Corrosive				

SECTION 15 -- REGULATORY INFORMATION

REGULATORY STATUS

EPA REGISTERED (UNDER FIFRA)	
FDA REGULATED	
KOSHER	
SARA TITLE III MATERIAL	Immediate Hazard
USDA AUTHORIZED	
NSF APPROVAL	

SECTION 16 -- OTHER INFORMATION

NFPA CLASSIFICATION

2	BLUE	HEALTH HAZARD
1	RED	FLAMMABILITY
1	YELLOW	REACTIVITY
C	WHITE	SPECIAL HAZARD