
Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: 14A Redi-Bath

Product Code: Not available.

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Non-Destructive Testing.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: Magnaflux 155 Harlem Avenue, Glenview, Illinois 60025

Telephone Number: 847-657-5300

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC 800-424-9300

Date of Preparation: October 7, 2014 **Version #:** 1.0

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012**Hazard class**

Skin irritation 2
Serious eye damage1
Reproductive toxicity 1B

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012**Hazard Pictogram:**

Signal Word: Danger

Hazard Statement: Causes skin irritation. Causes serious eye damage. May damage fertility or the unborn child.

Prevention: Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

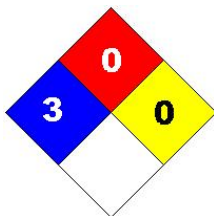
2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

8 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

WHMIS Classification(s):

Class D2A - Reproductive Toxicity

Class D2B - Skin/Eye Irritant

WHMIS Hazard Symbols:



WHMIS Signal Word: WARNING

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	UN #	H / F / R / *	CAS No	Wt. %
Monoethanolamine	UN2491	3/2/0	141-43-5	5 - 10
Dimethyl glutarate	Not available.	Not available.	1119-40-0	3 - 7
Triethanolamine	Not available.	Not available.	102-71-6	3 - 7
Alcohols, C6-10, ethoxylated propoxylated	Not available.	Not available.	68987-81-5	3 - 7
Boric acid	Not available.	Not available.	10043-35-3	1 - 5
Etidronic acid	Not available.	Not available.	2809-21-4	1 - 5
Dimethyl succinate	Not available.	Not available.	106-65-0	1 - 5
Dimethyl adipate	Not available.	Not available.	627-93-0	1 - 5
2-Amino-2-methylpropanol	Not available.	Not available.	124-68-5	0.5 - 1.5
2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	Not available.	Not available.	2387-03-3	0.5 - 1.5
Manganese, elemental	Not available.	1/2/2	7439-96-5	0.1 - 1
Ethylene oxide	UN1040	3/4/3	75-21-8	< 0.1
1,4-Dioxane	UN1165	2/3/1	123-91-1	< 0.1

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

- Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- Inhalation:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Skin:** Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Inhalation:** May cause respiratory tract irritation. Inhalation of vapors formed during heating may cause drowsiness, dizziness, and nausea.
- Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

- Note to Physicians:** Symptoms may not appear immediately.
- Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

- Flammability:** Not flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.

5.2 EXTINGUISHING MEDIA

- Suitable Extinguishing Media:** Treat for surrounding material.
- Unsuitable Extinguishing Media:** None known.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

- Products of Combustion:** May include, and are not limited to: oxides of carbon.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Scoop up material and place in a disposal container. Provide ventilation.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Do not get in eyes, on skin, or on clothing. Avoid breathing dust/fume/ gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep out of the reach of children. Keep container tightly closed. Store locked up. Keep away from incompatible materials. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Ingredient	Occupational Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Monoethanolamine	3 ppm	3 ppm
Dimethyl glutarate	Not available.	Not available.
Triethanolamine	Not available.	5 mg/m ³
Alcohols, C6-10, ethoxylated propoxylated	Not available.	Not available.
Boric acid	Not available.	2 mg/m ³
Etidronic acid	Not available.	Not available.
Dimethyl succinate	Not available.	Not available.
Dimethyl adipate	Not available.	Not available.
2-Amino-2-methylpropanol	Not available.	Not available.

2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	Not available.	Not available.
Manganese, elemental	1 mg/m ³ (fume)	0.02 mg/m ³ (respirable fraction) 0.1 mg/m ³ (inhalable fraction)
Ethylene oxide	1 ppm	1 ppm
1,4-Dioxane	100 ppm	20 ppm

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

Skin Protection:

Hand Protection: Wear chemical resistant gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health and Safety Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Not available.
Color:	Not available.
Odor:	Not available.
Odor Threshold:	Not available.
Physical State:	Liquid.
pH:	Not available.
Melting Point/Freezing Point:	Not available.
Initial Boiling Point and Boiling Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability:	Not flammable.
Lower Flammability/Explosive Limit:	Not available.
Upper Flammability/Explosive Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.

Relative Density/Specific Gravity:	Not available.
Solubility:	Not available.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5 INCOMPATIBLE MATERIALS

Strong oxidizing agents. Strong reducing agents. Strong alkalis. Nitrites.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Skin: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation. Inhalation of vapors formed during heating may cause drowsiness, dizziness, and nausea.

Acute Toxicity:

Ingredient	IDLH	LC50	LD50
Monoethanolamine	30 ppm	Not available.	Oral 1720 mg/kg, rat
Dimethyl glutarate	Not available.	Not available.	Oral 8191 mg/kg, rat

			Dermal >2000 mg/kg, rabbit Oral 4190 mg/kg, rat Dermal >20 mL/kg, rabbit
Triethanolamine	Not available.	Not available.	
Alcohols, C6-10, ethoxylated propoxylated	Not available.	Not available.	Not available.
Boric acid	Not available.	Not available.	Oral 2660 mg/kg, rat Dermal >2000 mg/kg, rabbit
Etidronic acid	Not available.	Not available.	Oral 2400 mg/kg, rat Dermal >7940 mg/kg, rabbit
Dimethyl succinate	Not available.	Not available.	Oral >5000 mg/kg, rat Dermal >5 g/kg, rabbit
Dimethyl adipate	Not available.	Not available.	Oral > 5000 mg/kg, rat Dermal > 2000 mg/kg, rabbit
2-Amino-2-methylpropanol	Not available.	Not available.	Oral 2900 mg/kg, rat Dermal >2000 mg/kg, rabbit
2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	Not available.	Not available.	Not available.
Manganese, elemental	500 mg/m ³ (as Mn)	Inhalation > 5.14 mg/L 4 h, rat	Oral > 2000 mg/kg, rat
Ethylene oxide	Ca [800 ppm]	Inhalation 800 ppm 4 h, rat	Oral 72 mg/kg, rat
1,4-Dioxane	Ca [500 ppm]	Inhalation 48.5 mg/L 4 h, rat	Oral 4200 mg/kg, rat Dermal 7600 mg/kg, rabbit

Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
Not available.	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Monoethanolamine	Not listed.
Dimethyl glutarate	Not listed.
Triethanolamine	I-3
Alcohols, C6-10, ethoxylated propoxylated	Not listed.
Boric acid	G-A4
Etidronic acid	Not listed.
Dimethyl succinate	Not listed.
Dimethyl adipate	Not listed.
2-Amino-2-methylpropanol	Not listed.
2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	Not listed.
Manganese, elemental	G-A4
Ethylene oxide	O, G-A2, I-1, N-1, CP65
1,4-Dioxane	G-A3, I-2B, N-2, CP65

* See Section 15 for more information.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation:	Causes skin irritation.
Serious Eye Damage/Irritation:	Causes serious eye damage.
Respiratory Sensitization:	Based on available data, the classification criteria are not met.

Skin Sensitization:	Based on available data, the classification criteria are not met.
STOT-Single Exposure:	Based on available data, the classification criteria are not met.
Chronic Health Effects:	
Carcinogenicity:	Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity:	Based on available data, the classification criteria are not met.
Reproductive Toxicity:	
Developmental:	May damage the unborn child.
Teratogenicity:	Based on available data, the classification criteria are not met.
Embryotoxicity:	Based on available data, the classification criteria are not met.
Fertility:	May damage fertility.
STOT-Repeated Exposure:	Based on available data, the classification criteria are not met.
Aspiration Hazard:	Based on available data, the classification criteria are not met.
Toxicologically Synergistic Materials:	Not available.
Other Information:	Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION
14.1 UN NUMBER
DOT

Not regulated.

TDG

Not regulated.

NOM-004-SCT2-1994

Not regulated.

14.2 UN PROPER SHIPPING NAME
DOT

Not applicable.

TDG

Not applicable.

NOM-004-SCT2-1994

Not applicable.

14.3 TRANSPORT HAZARD CLASS (ES)
DOT

Not applicable.

TDG

Not applicable.

NOM-004-SCT2-1994

Not applicable.

14.4 PACKING GROUP
DOT

Not applicable.

TDG

Not applicable.

NOM-004-SCT2-1994

Not applicable.

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION
15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Mexico: SDS prepared pursuant to NOM-018-STPS-2000.

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Monoethanolamine	Not listed.	Not listed.	Not listed.	Not listed.
Dimethyl glutarate	Not listed.	Not listed.	Not listed.	Not listed.
Triethanolamine	Not listed.	Not listed.	Not listed.	Not listed.
Alcohols, C6-10, ethoxylated propoxylated	Not listed.	Not listed.	Not listed.	Not listed.
Boric acid	Not listed.	Not listed.	Not listed.	Not listed.
Etidronic acid	Not listed.	Not listed.	Not listed.	Not listed.
Dimethyl succinate	Not listed.	Not listed.	Not listed.	Not listed.

Dimethyl adipate	Not listed.	Not listed.	Not listed.	Not listed.
2-Amino-2-methylpropanol	Not listed.	Not listed.	Not listed.	Not listed.
2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	Not listed.	Not listed.	Not listed.	Not listed.
Manganese, elemental	Not listed.	Not listed.	Not listed.	313
Ethylene oxide	1,000	10	10	313
1,4-Dioxane	Not listed.	Not listed.	100	313

State Regulations

California Proposition 65:

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories:

Ingredient	Canada DSL/NDSL	USA TSCA
Monoethanolamine	DSL	Yes.
Dimethyl glutarate	DSL	Yes.
Triethanolamine	DSL	Yes.
Alcohols, C6-10, ethoxylated propoxylated	NDSL	Yes.
Boric acid	DSL	Yes.
Etidronic acid	DSL	Yes.
Dimethyl succinate	DSL	Yes.
Dimethyl adipate	DSL	Yes.
2-Amino-2-methylpropanol	DSL	Yes.
2-Hydroxynaphthalene-1-carbaldehyde [(2-hydroxy-1-naphthyl)methylene]hydrazone	DSL	Yes.
Manganese, elemental	DSL	Yes.
Ethylene oxide	DSL	Yes.
1,4-Dioxane	DSL	Yes.

NFPA-National Fire Protection Association:

Health:	3
Fire:	0
Reactivity:	0

HMIS-Hazardous Materials Identification System:

Health:	3*
Fire:	0
Physical Hazard:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

- CP65** **California Proposition 65**
- OSHA (O)** **Occupational Safety and Health Administration.**
- ACGIH (G)** **American Conference of Governmental Industrial Hygienists.**
 - A1 - Confirmed human carcinogen.
 - A2 - Suspected human carcinogen.
 - A3 - Animal carcinogen.
 - A4 - Not classifiable as a human carcinogen.
 - A5 - Not suspected as a human carcinogen.

IARC (I)**International Agency for Research on Cancer.**

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N)**National Toxicology Program.**

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: October 7, 2014

Expiry Date: October 7, 2017

Version: 1.0

Revision Date: October 7, 2014

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Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com

Prepared for: Magnaflux

End of Safety Data Sheet