

ReMARKable Clear Water Base Dry-Erase Resin B 1:2

Material Safety Data Sheet

Date of Preparation: 01/09/13

24 HOUR EMERGENCY ASSISTANCE	GENERAL MSDS ASSISTANCE
CHEMTREC: (800)-424-9300	360 Coatings
HEALTH HAZARD→ 1 FLAMMABILITY→ 1 REACTIVITY→ 0 SPECIAL→ 0	5556 Yahl Street Ste A Naples Florida 34109 800-936-2159 CHEMTREC – (800)424-9300

***For acute and chronic health effects refer to the discussion in Section III**

SECTION I: NAME

PRODUCT NAME: ReMARKable White Dry-Erase Resin B 1:2

TYPE OF USE: Coatings

The amine listed in this section is used as a neutralizing agent in the product and as such is bound in the matrix of the product as a salt; however, upon processing or drying/hardening of the coating some neutralizing agent (amine) may be released.

<u>Weight</u>	<u>Components</u>	<u>CAS-No.</u>
1 - 5	Triethanolamine	102-71-6
1 - 5	Propylene Glycol n-Butyl Ether	5131-66-8
<50	Titanium Dioxide	13463-67-7
<15	Proprietary	

SECTION II: COMPOSITION/OCCUPATIONAL EXPOSURE LIMITS

Triethanolamine (102-71-6)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 5 mg/m³

SECTION III: HAZARD IDENTIFICATION

Emergency Overview: Color: Colorless/White Form: Liquid Odor: Very Faint.
Product poses little or no hazard if spilled. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Irritating gases/fumes may be given off during burning or thermal decomposition

Potential Health Effects

Primary Routes of Entry: Skin Contact, Eye Contact

Medical Conditions Aggravated by Exposure: None known.

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HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation For Component: Triethanolamine

Inhalation is unlikely due to the low vapor pressure. If misted or handled at elevated temperatures, high concentrations may cause respiratory tract irritation.

Skin Contact

Acute Skin Contact for Component: Triethanolamine

May cause irritation with symptoms of reddening and itching.

For Component: Proovlene Givcol n-Butyl Ether

Slightly toxic by skin absorption.

Eye Contact

Acute Eye Contact for Component: Triethanolamine

May cause irritation with symptoms of reddening, tearing and stinging.

Ingestion

Acute Ingestion For Component: Triethanolamine

Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

For Component: Propylene Glycol n-Butyl Ether

May be harmful if swallowed.

Chronic Ingestion For Component: Triethanolamine

May cause liver damage. May cause kidney damage.

Other Effects of Exposure For Product

This product contains an amine neutralizing agent which is bound in the matrix of this product as a salt. This amine salt is considered essentially unreactive at room temperature. Generation of amine vapors is expected when this product is processed (heated) during the drying/hardening of the coating. The health effects statements in this section apply to the amine vapors thus produced.

Carcinogenicity

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

IV. FIRST AID MEASURES

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention if irritation develops.

Skin Contact

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In case of skin contact, wash affected areas with soap and water. Get medical attention if irritation develops. Thoroughly clean shoes before reuse. Wash clothing before reuse.

Inhalation

If inhaled, remove to fresh air. If breathing is difficult, give oxygen.

Ingestion

If ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

SECTION V: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Carbon dioxide (CO₂), dry chemical, foam, water spray for large fires.

Special Fire Fighting Procedures:

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize risk of rupture.

SECTION VI: ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures:

Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal.

SECTION VII: HANDLING AND STORAGE

Storage Temperature:

Minimum: 4.44 °C (40 °F)

Maximum: 50°C (122°F)

Storage Period

Unopened 6 Months @ 25 °C (77 °F)

Handling/Storage Precautions

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling.

Keep container closed when not in use. Protect from freezing. Avoid contact with eyes and skin.

Further Info on Storage Conditions

Protect from freezing. Store in a cool dry place. Store in original or similar containers. Employee education and training in the safe use and handling of this product are required under the OSHA Hazard Communication Standard 29 CFR 1910.1200

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

Triethanolamine (102-71-6)

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US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 5 mg/m³

Industrial Hygiene/Ventilation Measures

Under normal conditions of use, special ventilation is not required. Thermal processing operations should be ventilated to control gases and fumes given off during processing.

Respiratory Protection

None required under normal conditions of use. NIOSH approved air-supplied respirator during die cleaning, high temperature processing or when thermal decomposition is suspected.

Hand Protection

Permeation resistant gloves. Butyl rubber gloves, Nitrile rubber gloves.

Eye Protection

Safety glasses with side-shields.

Skin and body protection

Permeation resistant clothing. Gloves, long sleeved shirts and pants.

Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Colorless, White
Odor:	very faint
pH:	7-8
VOC:	<50 grams per liter
Freezing Point:	0 °C (32 °F)
Boiling Point/Range:	Begins at 100 °C (212 °F)
Flash Point:	Not applicable (water based product), however, solid material will support combustion if water has been evaporated.
Lower Explosion Limit:	Not Established
Upper Explosion Limit:	Not Established
Vapor Pressure:	Not Established
Specific Gravity:	1.2
Solubility in Water:	Soluble
Autoignition Temperature:	450°C
Viscosity, Dynamic:	No data available
Bulk Density:	No Data Available

SECTION X: STABILITY AND REACTIVITY

Hazardous Reactions: Hazardous polymerization does not occur.

Stability: Stable

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Materials to avoid: Water reactives

Conditions to avoid: Protect from freezing

Hazardous decomposition products: By Fire and High Heat: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke, Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds

SECTION XI: TOXICOLOGICAL INFORMATION

Toxicity Data for Clear WB Dry Erase Resin B 1:2

Toxicity Note

Toxicity data is based on a similar product.

Acute Oral Toxicity

LD50: > 2,000 mg/kg (rat)

Skin Irritation

Rabbit, OECD Guideline for Testing of Chemicals, No. 404, Exposure Time: 4 hrs, no skin irritation

Eye Irritation

Rabbit, OECD Guideline for Testing of Chemicals, No. 405, slightly irritating

Mutagenicity

Genetic Toxicity in Vitro:

Ames: negative (Salmonella typhimurium)

Toxicity Data for Triethanolamine

Acute Oral Toxicity

LD50: 4,190 mg/kg (Rat)

Acute dermal toxicity

LD50: > 2,000 mg/kg (Rabbit)

Skin Irritation

Rabbit, slightly irritating

Human, slightly irritating

Eye Irritation

Rabbit, moderately irritating

Rabbit, Draize, severely irritating

Sensitization Dermal

Non-sensitizer (Guinea Pig, Maximization Test)

Repeated Dose Toxicity

28 days, inhalation: NOAEL: > 0.5 mg/1, (Rat, Male/Female, 6 hrs/day 5 days/week)

13 weeks, Dermal: NOAEL: 500 mg/kg, (Rat, Male/Female, daily)

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Mutagenicity

Genetic Toxicity in Vitro:

Ames: Negative (Salmonella typhimurium, Metabolic Activation: with/without)

Genetic Toxicity in Vivo:

Drosophila SLRL test: Negative (Drosophila melanogaster)

Carcinogenicity

Rat, Female, Dermal, 2 years, Daily Negative

Mouse, Female, Dermal, 2 years, Positive

Rat, Male, Dermal, 2 years, Ambiguous

Mouse, Male, Dermal, 2 years, Ambiguous

Nitrosamines may be formed with nitrates or nitrous acid under certain conditions.

Nitrosamines have shown carcinogenic effects in animal tests.

Toxicity Data for Propylene Glycol n-Butyl Ether

Acute Oral Toxicity

LD50: 1,900 mg/kg (Rat)

Acute dermal toxicity

LD50: 3,100 mg/kg (rabbit)

Skin Irritation

Rabbit, irritating to skin

Eye Irritation

Rabbit, irritating to eyes

Repeated Dose Toxicity

11 d, Inhalation: NOAEL: <600 ppm, (Rat)

SECTION XII: ECOLOGICAL INFORMATION

Ecological Data for Clear Dry-Erase Resin B 1:2

Biodegradation

< 60

Acute and Prolonged Toxicity to Fish

EC50: > 100 mg/l (Zebra fish (Brachydanio rerio), 96 hrs)

Additional Ecotoxicological Remarks

Ecotoxicology data is based on a similar product.

Ecological Data for Triethanolamine

Biodegradation

Aerobic, 82, Exposure time: 8 Days

Inherently biodegradable

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Biological Oxygen Demand (BOD)

5 Days, 0.17 mg/l

Chemical Oxygen Demand (COD)

0.5 mg/g

Theoretical Biological Oxygen Demand (ThBOD)

1.61 -2.04 mg/g

Bioaccumulation

Carp, Exposure time: 42 Days, < 0.4 BCF

Acute and Prolonged Toxicity to Fish

LC50: > 5,000 mg/l (Fathead Minnow (*Pimephales promelas*), 96 hrs)

LC50: 450 mg/l (Bluegill (*Lepomis macrochirus*), 96 hrs)

Acute Toxicity to Aquatic Invertebrates

EC50: 1,386 mg/l (Water Flea (*Daphnia magna*), 24 hrs)

Toxicity to Aquatic Plants

EC50: 216 - 750 mg/l, End Point: growth (Green algae (*Scenedesmus subspicatus*), 72 hrs)

Toxicity to Microorganisms

EC10: 7,650 mg/l, (*Pseudomonas putida*, 16 hrs)

EC50: 525 mg/l, (*Photobacterium phosphoreum*, 30 min)

Ecological Data for Propylene Glycol n-Butyl Ether

Biodegradation

> 90, Exposure time: 28 d

Acute and Prolonged Toxicity to Fish

LC50: 560 - 1,000 mg/l (Guppy (*Poecilia reticulata*))

Acute Toxicity to Aquatic Invertebrates

EC50: > 1,000 mg/l (Water flea (*Daphnia magna*))

SECTION XIII: DISPOSAL CONSIDERATIONS

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state and local environmental control laws

Empty Container Precautions

Recondition or dispose of empty container in accordance with governmental regulations

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SECTION XIV: TRANSPORT INFORMATION

Land transport (DOT): Non-Regulated
Sea transport (IMDG): Non-Regulated
Air transport (ICAO/IATA): Non-Regulated

SECTION XV: REGULATORY INFORMATION

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302):

Components: None

SARA Section 311/312 Hazard Categories:

Acute Health Hazard

US EPA Emergency Planning and Community Right-To-Know (EPCRA) SARA Title III

Section 301 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Components: None

US EPA Emergency Planning and Community Right-To-Know (EPCRA) SARA Title III

Section 313 Toxic Chemicals (40 CFR 372.65) – Supplier Notification Required:

Components: None

US EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261)

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

State Right-To-Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:

<u>Weight %</u>	<u>Components</u>	<u>CAS No.</u>
>=1%	Water	7732-18-5
>=1%	Polyacrylate Resin	CAS# a trade secret
>=1%	Reactive diluent	CAS# a trade secret
1-5%	Triethanolamine	102-71-6
1-5%	Propylene Glycol n-Butyl Ether	5131-66-8

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California Prop. 65: To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

SECTION XVI: OTHER INFORMATION

NFPA 704M Rating

Health 1

Flammability 1

Reactivity 0

Other 0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

HMIS Rating

Health 1

Flammability 1

Physical Hazard 0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

* = Chronic Health Hazard

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