



MATERIAL SAFETY DATA SHEET

Color-Crown Corporation
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NON-TRANSPORTATION
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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Waterbased Durothane Part A
Material Number: 4327075
Chemical Family: Aqueous Polyacrylic Dispersion

2. HAZARDS IDENTIFICATION

Emergency Overview

CAUTION! Color: Milky White **Form:** Liquid **Odor:** Mild, Characteristic.

May cause eye, skin, and respiratory tract irritation. 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, Ingestion, Inhalation

Medical Conditions Aggravated by Exposure: Skin disorders, Respiratory disorders, Eye disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation

Acute Inhalation

For Product: **WATERBASED DUROTHANE PART A**

May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

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

Acute Skin

For Product: **WATERBASED DUROTHANE PART A**

May cause irritation with symptoms of reddening and itching.

For Component: **Triethanolamine**

May cause irritation with symptoms of reddening and itching.

For Component: **Propylene Glycol n-Butyl Ether**

Slightly toxic by skin absorption.

Eye

Acute Eye

For Product: **WATERBASED DUROTHANE PART A**

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

For Component: **Triethanolamine**

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

Ingestion

Acute Ingestion

For Product: **WATERBASED DUROTHANE PART A**

Not expected to be harmful if swallowed

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: **WATERBASED DUROTHANE PART A**

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

This amine listed in this section is used as a neutralizing agent in this 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

4. FIRST AID MEASURES

Eye Contact: In case of contact, flush eyes with plenty of lukewarm water. Get medical attention if irritation develops.

Skin Contact: In case of skin contact, wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation: If inhaled, removed to fresh air. Get medical attention if irritation develops.

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

5. 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.

6. ACCIDENTIAL RELEASE MEASURES

Spill and Leak Procedures: Cover spill with inert material (e.g., dry sand or earth) and collect for proper disposal. Dike or dam spilled material and control further spillage, if possible. Prevent from entering open drains and waterways. Wash spill area with soap and water.

7. HANDLING AND STORAGE

Storage Temperature: Minimum: 5°C (41 °F) Maximum: 50°C (122 °F)

Storage Period: 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. Avoid breathing dust, vapor, or mist. Avoid contact with eyes. Avoid contact with skin in clothing. Protect from freezing.

Further Info on Storage Conditions: Store in a cool dry place. Store in original or similar containers. Store separate from food products.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Triethanolamine (102-71-6) US. ACGIH Threshold Limited 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: Chemical safety goggles or safety glasses with side-shields., Chemical safety goggles in combination with a full face shield if a splash hazard exists.

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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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Milky White
Odor:	Mild, Characteristic
pH:	Approximately 7.5
Freezing Point:	Approximately 0 °C (32 °F) similar to water
Boiling Point/Range:	Approximately 100 °C (212 °F) similar to water
Flash Point:	> 93.33 °C (>200 °F)
Lower Explosion Limit:	Not Established
Upper Explosion Limit:	Not Established
Vapor Pressure:	No Data Available
Specific Gravity:	No Data Available
Solubility in Water:	Miscible
Autoignition Temperature:	Not Established
Viscosity, Dynamic:	No Data Available
Bulk Density:	No Data Available

10. STABILITY AND REACTIVITY

Hazardous Reactions: Hazardous polymerization does not occur.

Stability: Stable

Materials to Avoid: Water reactives

Conditions to Avoid: Protect from freezing

Hazardous decomposition products: By fire and thermal decomposition: Carbon Dioxide; Carbon Monoxide; Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke, Isocyanate, Isocyanic Acid and other undetermined compounds., Hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

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, Severly irritating

Sensitization: dermal: non-sensitizer (Guinea pig, Maximization Test)

Repeated Dose Toxicity: 28 days, inhalation: NOAEL: > 0.5 mg/l, (Rat, Male/Female, 6 hrs/day 5 days/week)
13 weeks, Dermal: NOAEL: 500 mg/kg, (rat, Male/Female, daily)

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)

12. ECOLOGICAL INFORMATION

Ecological Data for Triethanolamine

Biodegradation: Aerobic, 82 %, Exposure time: 8 Days – Inherently biodegradable
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*))

13. 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.

14. TRANSPORTATION INFORMATION

Land transport (DOT): Non-Regulated

Sea transport (IMDG): Non-Regulated

Air transport (ICAO/IATA): Non-Regulated

15. 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 Act (EPCRA) SARA Title III Section 302

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

Components: None

US. EPA Emergency Planning and Community Right-To-Know Act (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): If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

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# is a trade secret
>-1%	Reactive diluent	CAS# is 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.

16. OTHER INFORMATION

NFPA 704M Rating

Health 1
Flammability 1
Reactivity 0

Other

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

The method of hazard communication for Color-Crown Corporation is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Color-Crown Corporation as a customer service.

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