



# SAFETY DATA SHEET

Revision Date: 31-Jul-2018

Revision Number: 4

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** ALIPHATIC ACRYLIC URETHANE SEMI-GLOSS DEEP BASE  
**Product Code** V510-87  
**Alternate Product Code** V51087  
**Product Class** FINISH COATING  
**Color** All  
**Recommended use** Industrial paint  
**Restrictions on use** No information available

**Manufacturer** Benjamin Moore & Co.  
101 Paragon Drive  
Montvale, NJ 07645  
Phone: 1-866-708-9180  
corotechcoatings.com

**Emergency Telephone**  
CHEMTREC (US): 800-424-9300  
CHEMTREC (outside US): (703)-527-3887

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization	Category 1A
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 2

### Label elements

#### **Danger**

#### **Hazard statements**

May cause an allergic skin reaction  
Suspected of causing cancer  
May cause damage to organs through prolonged or repeated exposure  
Highly flammable liquid and vapor



**Appearance** liquid

**Odor** solvent

#### **Precautionary Statements - Prevention**

Obtain special instructions before use

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

Use personal protective equipment as required

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Do not breathe dust/fume/gas/mist/vapors/spray

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

#### **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

##### **Skin**

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

##### **Fire**

In case of fire: Use CO2, dry chemical, or foam for extinction

#### **Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place. Keep cool

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Hazards not otherwise classified (HNOC)**

Not applicable

#### **Other information**

No information available

#### **Other hazards**

**IMPORTANT:** Designed to be mixed with other components. Mixture will have hazards of all components. Before opening packages, read all warning labels. Follow all precautions.

**CAUTION:** All floor coatings may become slippery when wet. Where non-skid characteristics are desired, use an appropriate anti-slip aggregate.

### 3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
n-Butyl acetate	123-86-4	20
Titanium dioxide	13463-67-7	15
t-Butyl acetate	540-88-5	10
2-Pentanone, 4-methyl-	108-10-1	5
Xylene	1330-20-7	5
Ethyl benzene	100-41-4	0.5
Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidiny) ester	41556-26-7	0.5

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General Advice</b>	If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Wash clothing before reuse. Destroy contaminated articles such as shoes.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. Call a physician immediately.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Protection Of First-Aiders</b>	Use personal protective equipment.
<b>Most Important Symptoms/Effects</b>	May cause allergic skin reaction.
<b>Notes To Physician</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause flash fire.
<b>Suitable Extinguishing Media</b>	Foam, dry powder or water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Protective Equipment And Precautions For Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<b>Hazardous combustion products</b>	Burning may result in carbon dioxide, carbon monoxide and other combustion products of varying composition which may be toxic and/or irritating.
<b>Specific Hazards Arising From The Chemical</b>	Flammable. Flash back possible over considerable distance. Keep product and empty container away from heat and sources of ignition. Closed containers may rupture if exposed to fire or extreme heat. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Sensitivity To Mechanical Impact</b>	No
<b>Sensitivity To Static Discharge</b>	Yes
<b>Flash Point Data</b>	
Flash Point (°F)	40
Flash Point (°C)	4
Method	PMCC
<b>Flammability Limits In Air</b>	
Lower flammability limit:	Not available
Upper flammability limit:	Not available

**NFPA**    **Health:** 2                      **Flammability:** 3                      **Instability:** 0                      **Special:** Not Applicable

**NFPA Legend**

- 0 - Not Hazardous
- 1 - Slightly
- 2 - Moderate
- 3 - High
- 4 - Severe

*The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.*

*Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at [www.nfpa.org](http://www.nfpa.org).*

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Remove all sources of ignition. Take precautions to prevent flashback. Ground and bond all containers and handling equipment. Take precautionary measures against static discharges. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.
<b>Other Information</b>	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
<b>Methods for Cleaning Up</b>	Dam up. Soak up with inert absorbent material. Use a non-sparking or explosion

proof means to transfer material to a sealed, appropriate container for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in ventilated areas. Prevent vapor build-up by providing adequate ventilation during and after use.

Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Ignition and/or flash back may occur.

### Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children.

### Incompatible Materials

Incompatible with strong acids and bases and strong oxidizing agents.

### Technical measures/Precautions

Ensure adequate ventilation. Use only where airflow will keep vapors from building up in or near the work area in adjoining rooms. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing and disposal of flammable liquids.

Dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. All equipment should be non-sparking and explosion proof. Use explosion proof electrical equipment for ventilation, lighting and material handling.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL
n-Butyl acetate	150 ppm - TWA 200 ppm - STEL	150 ppm - TWA 710 mg/m <sup>3</sup> - TWA
Titanium dioxide	10 mg/m <sup>3</sup> - TWA	15 mg/m <sup>3</sup> - TWA
t-Butyl acetate	200 ppm - TWA	200 ppm - TWA 950 mg/m <sup>3</sup> - TWA
2-Pentanone, 4-methyl-	20 ppm - TWA 75 ppm - STEL	100 ppm - TWA 410 mg/m <sup>3</sup> - TWA
Xylene	100 ppm - TWA 150 ppm - STEL	100 ppm - TWA 435 mg/m <sup>3</sup> - TWA
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 435 mg/m <sup>3</sup> - TWA

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits

OSHA - Occupational Safety & Health Administration Exposure Limits

N/E - Not Established

Appropriate engineering controls

**Engineering Measures**                      Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

<b>Eye/Face Protection</b>	Safety glasses with side-shields.
<b>Skin Protection</b>	Long sleeved clothing. Protective gloves.
<b>Respiratory Protection</b>	Use only with adequate ventilation. In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH approved respirator specified for paint spray or organic vapors.

**Hygiene Measures**                      Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	liquid
<b>Odor</b>	solvent
<b>Odor Threshold</b>	No information available
<b>Density (lbs/gal)</b>	9.6 - 9.7
<b>Specific Gravity</b>	1.15 - 1.17
<b>pH</b>	No information available
<b>Viscosity (cps)</b>	No information available
<b>Solubility(ies)</b>	No information available
<b>Water solubility</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Vapor pressure @20 °C (kPa)</b>	No information available
<b>Vapor density</b>	No information available
<b>Wt. % Solids</b>	60 - 70
<b>Vol. % Solids</b>	45 - 55
<b>Wt. % Volatiles</b>	30 - 40
<b>Vol. % Volatiles</b>	45 - 55
<b>VOC Regulatory Limit (g/L)</b>	<340
<b>Boiling Point (°F)</b>	208
<b>Boiling Point (°C)</b>	98
<b>Freezing Point (°F)</b>	No information available
<b>Freezing Point (°C)</b>	No information available
<b>Flash Point (°F)</b>	40
<b>Flash Point (°C)</b>	4
<b>Method</b>	PMCC
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper flammability limit:</b>	No information available
<b>Lower flammability limit:</b>	No information available
<b>Autoignition Temperature (°F)</b>	No information available
<b>Autoignition Temperature (°C)</b>	No information available
<b>Decomposition Temperature (°F)</b>	No information available
<b>Decomposition Temperature (°C)</b>	No information available
<b>Partition coefficient</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	No data available
<b>Chemical Stability</b>	Stable under normal conditions. Hazardous polymerisation does not occur.
<b>Conditions to avoid</b>	Keep away from open flames, hot surfaces, static electricity and sources of ignition. Sparks. Elevated temperature.
<b>Incompatible Materials</b>	Incompatible with strong acids and bases and strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Possibility of hazardous reactions</b>	None under normal conditions of use.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

### Information on likely routes of exposure

**Principal Routes of Exposure** Eye contact, skin contact and inhalation.

### Acute Toxicity

**Product Information** Repeated or prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the skin and produce dermatitis.
<b>Ingestion</b>	Harmful if swallowed. Ingestion may cause irritation to mucous membranes. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.
<b>Inhalation</b>	Harmful by inhalation. High vapor / aerosol concentrations are irritating to the eyes, nose, throat and lungs and may cause headaches, dizziness, drowsiness, unconsciousness, and other central nervous system effects.
<b>Sensitization</b>	May cause an allergic skin reaction
<b>Neurological Effects</b>	No information available.
<b>Mutagenic Effects</b>	No information available.
<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.

**Target organ effects** No information available.  
**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.  
**STOT - single exposure** May cause disorder and damage to the. Respiratory system. Central nervous system.  
**Other adverse effects** No information available.  
**Aspiration Hazard** May be harmful if swallowed and enters airways. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 10768 mg/kg  
**ATEmix (dermal)** 11678 mg/kg  
**ATEmix (inhalation-dust/mist)** 14.5 mg/L  
**ATEmix (inhalation-vapor)** 2204

**Acute Toxicity**  
**Component Information**

n-Butyl acetate  
 LD50 Oral: 10768 mg/kg (Rat)  
 LD50 Dermal: > 17600 mg/kg (Rabbit)  
 LC50 Inhalation (Vapor): ppm (Rat, 4 hr.)  
 Sensitization non-sensitizing (guinea pig)  
Titanium dioxide  
 LD50 Oral: > 10000 mg/kg (Rat)  
2-Pentanone, 4-methyl-  
 LD50 Oral: 2080-4600 mg/kg (Rat)  
 LC50 Inhalation (Vapor): 100000 mg/m<sup>3</sup>  
Xylene  
 LD50 Oral: 4300 mg/kg (Rat)  
 LD50 Dermal: > 1700 mg/kg (Rabbit)  
 LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)  
Ethyl benzene  
 LD50 Oral: mg/kg (Rat)  
 LD50 Dermal: > mg/kg (Rabbit)  
 LC50 Inhalation (Vapor): mg/m<sup>3</sup> (Rat, 2 hr.)  
Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester  
 Sensitization May cause sensitization by skin contact

**Carcinogenicity**

The information below indicates whether each agency has listed any ingredient as a carcinogen:

Chemical name	IARC	NTP	OSHA
Titanium dioxide	2B - Possible Human Carcinogen		Listed
2-Pentanone, 4-methyl-	2B - Possible Human Carcinogen		Listed
Ethyl benzene	2B - Possible Human Carcinogen		Listed

• Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes:



"No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

**Legend**

IARC - International Agency for Research on Cancer

NTP - National Toxicity Program

OSHA - Occupational Safety & Health Administration

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity Effects**

The environmental impact of this product has not been fully investigated.

**Product Information**

**Acute Toxicity to Fish**

No information available

**Acute Toxicity to Aquatic Invertebrates**

No information available

**Acute Toxicity to Aquatic Plants**

No information available

**Persistence / Degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility in Environmental Media**

No information available.

**Ozone**

Not applicable

**Component Information**

**Acute Toxicity to Fish**

n-Butyl acetate

LC50: 18 mg/L (Fathead Minnow - 96 hr.)

Titanium dioxide

LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Xylene

LC50: 13.5 mg/L (Rainbow Trout - 96 hr.)

Ethyl benzene

LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

**Acute Toxicity to Aquatic Invertebrates**

n-Butyl acetate

EC50: 72.8 mg/L (Daphnia magna - 48 hr.)

Ethyl benzene

EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

### **Acute Toxicity to Aquatic Plants**

n-Butyl acetate

EC50: 674.7 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

Ethyl benzene

EC50: 4.6 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

## 13. DISPOSAL CONSIDERATIONS

### **Waste Disposal Method**

Dispose of in accordance with federal, state, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

### **Empty Container Warning**

Emptied containers may retain product residue. Follow label warnings even after container is emptied. Residual vapors may explode on ignition.

## 14. TRANSPORT INFORMATION

### **DOT**

<b>Proper Shipping Name</b>	PAINT
<b>Hazard class</b>	3
<b>UN-No.</b>	UN1263
<b>Packing Group</b>	II
<b>Description</b>	UN1263, PAINT, 3, II

### **ICAO / IATA**

Contact the preparer for further information.

### **IMDG / IMO**

Contact the preparer for further information.

## 15. REGULATORY INFORMATION

### **International Inventories**

**TSCA: United States**

Yes - All components are listed or exempt.

**DSL: Canada**

No - Not all of the components are listed.

One or more component is listed on NDSL.

### **Federal Regulations**

#### **SARA 311/312 hazardous categorization**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

<u>Chemical name</u>	<u>CAS No.</u>	<u>Weight-%</u>	<u>CERCLA/SARA 313 (de minimis concentration)</u>
2-Pentanone, 4-methyl-	108-10-1	5	1.0
Xylene	1330-20-7	5	1.0
Ethyl benzene	100-41-4	0.5	0.1

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:

<u>Chemical name</u>	<u>CAS No.</u>	<u>Weight-%</u>	<u>Hazardous Air Pollutant (HAP)</u>
2-Pentanone, 4-methyl-	108-10-1	5	Listed
Xylene	1330-20-7	5	Listed
Ethyl benzene	100-41-4	0.5	Listed

**US State Regulations**

**California Proposition 65**

 **WARNING:** Cancer and Reproductive Harm– [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

**State Right-to-Know**

<u>Chemical name</u>	<u>Massachusetts</u>	<u>New Jersey</u>	<u>Pennsylvania</u>
n-Butyl acetate	X	X	X
Titanium dioxide	X	X	X
t-Butyl acetate	X	X	X
2-Pentanone, 4-methyl-	X	X	X
Xylene	X	X	X

**Legend**

X - Listed

**16. OTHER INFORMATION**

**HMIS -** Health: 2\* Flammability: 3 Reactivity: 0 PPE: -

**HMIS Legend**

0 - Minimal Hazard

1 - Slight Hazard

2 - Moderate Hazard

3 - Serious Hazard

4 - Severe Hazard

\* - Chronic Hazard

X - Consult your supervisor or S.O.P. for "Special" handling instructions.

---

*Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.*

*Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.*

**WARNING!** If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

**Prepared By** Product Stewardship Department  
Benjamin Moore & Co.  
101 Paragon Drive  
Montvale, NJ 07645  
800-225-5554

**Revision Date:** 31-Jul-2018  
**Revision Summary** Not available

Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

**END OF SAFETY DATA SHEET**