



Revision Date: 20-Jul-2018

Revision Number: 3

1. PRODUCT AND COMPANY IDENTIFICATION

QUICK DRY ALKYD ENAMEL SEMI-GLOSS BRONZETONE V231-62

Product Name Product Code Alternate Product Code Product Class Color Recommended use Restrictions on use

Manufacturer

Benjamin Moore & Co. 101 Paragon Drive Montvale, NJ 07645 Phone: 1-866-708-9180 corotechcoatings.com V231-62 V23162 SOLVENT THINNED PAINT Orange Industrial paint No information available

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)

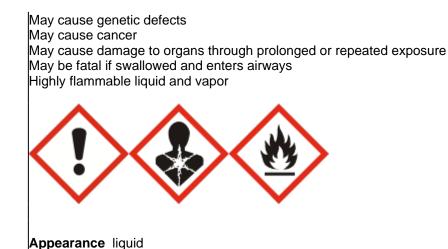
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 2

Label elements

Danger

Hazard statements

Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction



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 Wash face, hands and any exposed skin thoroughly after handling Contaminated work clothing should not be allowed out of the workplace 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 Wear protective gloves/protective clothing/eye protection/face protection **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

Eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

Skin

If skin irritation or rash occurs: Get medical advice/attention IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

Indestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

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)

Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded

Other information

No information available

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Hydrotreated light naphtha	64742-49-0	20
Xylene	1330-20-7	15
Ethyl benzene	100-41-4	5
Iron oxide	1309-37-1	5
Titanium dioxide	13463-67-7	1
Carbon black	1333-86-4	0.5
Methyl ethyl ketoxime	96-29-7	0.5
Cobalt bis(2-ethylhexanoate)	136-52-7	0.5

4. FIRST AID MEASURES

Description of first aid measures

General Advice	If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
Eye Contact	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.
Skin Contact	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.
Inhalation	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. Call a physician immediately.
Ingestion	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.
Protection Of First-Aiders	Use personal protective equipment.
Most Important Symptoms/Effects	May cause allergic skin reaction.
Notes To Physician	Treat symptomatically.
	5. FIRE-FIGHTING MEASURES

Flammable Properties			nsiderable distance to a source of a. Vapors may cause flash fire.
Suitable Extinguishing Media			water. Use extinguishing measures local circumstances and the ent.
Protective Equipment And Prec Firefighters	autions For		If-contained breathing apparatus HA/NIOSH (approved or equivalent) r.
Hazardous combustion product	S		carbon dioxide, carbon monoxide products of varying composition d/or irritating.
Specific Hazards Arising From	The Chemical	distance. Keep produc heat and sources of ig rupture if exposed to fi	k possible over considerable and empty container away from nition. Closed containers may a containers may ire or extreme heat. Thermal a to release of irritating gases and
Sensitivity To Mechanical Impac	ct	No	
Sensitivity To Static Discharge		Yes	
Flash Point Data Flash Point (°F) Flash Point (°C) Method		50 10 PMCC	
Flammability Limits In Air			
Lower flammability limit: Upper flammability limit:		Not available Not available	
NFPA Health: 2	Flammability: 3	Instability: 0	Special: Not Applicable
NFPA Legend			

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.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

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.
Other Information	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.
Environmental precautions	See Section 12 for additional Ecological Information.
Methods for Cleaning Up	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.
	DANGER - Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container.
Incompatible Materials	Incompatible with strong acids and bases and strong oxidizing agents.
Technical measures/Precaution	s 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
Xylene	100 ppm - TWA	100 ppm - TWA

	150 ppm - STEL	435 mg/m³ - TWA
Ethyl benzene	20 ppm - TWA	100 ppm - TWA
		435 mg/m³ - TWA
Iron oxide	5 mg/m³ - TWA	10 mg/m³ - TWA
		15 mg/m ³ - TWA Rouge
		5 mg/m ³ - TWA Rouge
Titanium dioxide	10 mg/m ³ - TWA	15 mg/m³ - TWA
Carbon black	3 mg/m ³ - TWA	3.5 mg/m³ - 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

controis

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection	Safety glasses with side-shields.
Skin Protection	Long sleeved clothing. Protective gloves.
Respiratory Protection	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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Odor **Odor Threshold** Density (lbs/gal) **Specific Gravity** pН Viscosity (cps) Solubility(ies) Water solubility **Evaporation Rate** Vapor pressure @20 °C (kPa) Vapor density Wt. % Solids Vol. % Solids Wt. % Volatiles Vol. % Volatiles VOC Regulatory Limit (g/L) **Boiling Point (°F) Boiling Point (°C)** Freezing Point (°F) Freezing Point (°C)

liquid solvent No information available 9.6 - 9.7 1.15 - 1.17 No information available 60 - 70 45 - 55 30 - 40 45 - 55 <400 257 125 No information available No information available

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

V231-62 - QUICK DRY ALKYD ENAMEL SEMI-GLOSS BRONZETONE

Flash Point (°F) Flash Point (°C)
Method
Flammability (solid, gas)
Upper flammability limit:
Lower flammability limit: Autoignition Temperature (°F)
Autoignition Temperature (°C)
Decomposition Temperature (°F)
Decomposition Temperature (°C)
Partition coefficient

50 10 PMCC Not applicable No information available No information available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical Stability	Stable under normal conditions. Hazardous polymerisation does not occur.
Conditions to avoid	Keep away from open flames, hot surfaces, static electricity and sources of ignition. Sparks. Elevated temperature.
Incompatible Materials	Incompatible with strong acids and bases and strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors.
Possibility of hazardous reactions	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		
Eye contact Skin contact	Contact with eyes may cause irritation. May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the	

Ingestion	skin and produce dermatitis. 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
Inhalation	death. 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.
Sensitization	May cause an allergic skin reaction
Neurological Effects	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	No information available.
Developmental Effects	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.
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)	12389 mg/kg
ATEmix (dermal)	5792 mg/kg
ATEmix (inhalation-dust/mist)	11 mg/L

Acute Toxicity Component Information

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/m³ (Rat, 2 hr.) Iron oxide LD50 Oral: > 5000 mg/kg (Rat) vendor data Titanium dioxide LD50 Oral: > 10000 mg/kg (Rat) Carbon black LD50 Oral: > 15400 mg/kg (Rat) LD50 Dermal: > 3000 mg/kg (Rabbit) Methyl ethyl ketoxime LD50 Oral: 930 mg/kg (Rat) LD50 Dermal: 200 µL/kg (Rabbit) LC50 Inhalation (Vapor): > 4.8 mg/L (Rat)

Carcinogenicity

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

Chemical name	IARC	NTP	OSHA
	2B - Possible Human		Listed
Ethyl benzene	Carcinogen		
	2B - Possible Human		Listed
Titanium dioxide	Carcinogen		
	2B - Possible Human		Listed
Carbon black	Carcinogen		
	2B - Possible Human		Listed
Cobalt bis(2-ethylhexanoate)	Carcinogen		

• 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."

• Cobalt and cobalt compounds are listed as possible human carcinogens by IARC (2B). However, there is inadequate evidence of the carcinogenicity of cobalt and cobalt compounds in humans.

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

<u>Xylene</u> LC50: 13.5 mg/L (Rainbow Trout - 96 hr.) <u>Ethyl benzene</u> LC50: 12.1 mg/L (Fathead Minnow - 96 hr.) <u>Titanium dioxide</u> LC50: > 1000 mg/L (Fathead Minnow - 96 hr.) <u>Methyl ethyl ketoxime</u> LC50: 48 mg/L (Bluegill sunfish - 96 hr.)

Acute Toxicity to Aquatic Invertebrates

Ethyl benzene EC50: 1.8 mg/L (Daphnia magna - 48 hr.) Methyl ethyl ketoxime EC50: 750 mg/L (Daphnia magna - 48 hr.)

Acute Toxicity to Aquatic Plants

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 Proper Shipping Name Hazard class UN-No. Packing Group Description	PAINT 3 UN1263 II 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

Yes - All components are listed or exempt.

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:

Chemical name	CAS No.	Weight-%	CERCLA/SARA 313 (de minimis concentration)
Xylene	1330-20-7	15	1.0
Ethyl benzene	100-41-4	5	0.1

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

This product contains the following HAPs:

Chemical name	CAS No.	Weight-%	Hazardous Air Pollutant
Xylene	1330-20-7	15	<u>(HAP)</u> Listed
Ethyl benzene	100-41-4	5	Listed

US State Regulations

California Proposition 65

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Xylene	Х	X	Х
Ethyl benzene	Х	X	Х
Iron oxide	X	X	Х
2-Butoxyethanol	X	X	Х
Carbon black	X	X	Х

Legend

X - Listed

16. OTHER INFORMATION

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

Prepared By	Product Stewardship Department Benjamin Moore & Co. 101 Paragon Drive Montvale, NJ 07645 800-225-5554
Revision Date:	20-Jul-2018
Revision Summary	Not available

Disclaimer

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END OF SAFETY DATA SHEET