

SAFETY DATA SHEET

Print date: 02/13/2018 **Revision Date: 02/13/2018 Revision Number: 1**

1. IDENTIFICATION

Product identifier

Product Name: QUAKERCOAT® 038 MST BLUE

Product code: 015206-04

Other means of identification

Synonyms No information available

Application

Corrosion Preventive Recommended Use Uses advised against For industrial use only

Supplier/Manufacturer:

Supplier:

Emergency telephone number: **Quaker Chemical Corporation** * 24 HOUR TRANSPORTATION: Quaker Park One **CHEMTREC: 1-800-424-9300

901 Hector Street +703-527-3887 (Call collect outside of US) Conshohocken, PA 19428 * 24 HOUR EMERGENCY HEALTH & SAFETY:

**QUAKER CHEMICAL CORPORATION: (800) 523-7010 610-832-4000 (Within US only) Outside of US call (703) 527-3887 E-mail: she@quakerchem.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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 1
Skin Sensitization	Category 1B
Chronic aquatic toxicity	Category 3

Label Elements

Emergency Overview

DANGER

Hazard Statements

Causes skin irritation

Causes serious eye damage

May cause an allergic skin reaction Harmful to aquatic life with long lasting effects



Appearance Blue Physical State Liquid Odor Vinegar-like

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Avoid breathing dust/fume/gas/mist/vapors/spray Contaminated work clothing should not be allowed out of the workplace Avoid release to the environment

Precautionary Statements - Response

Specific treatment (see First Aid)

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 or doctor

IF ON SKIN: Wash with plenty of water and soap Take off contaminated clothing and wash it before reuse If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known

Other Information

Harmful to aquatic life.

Unknown acute toxicity

18.49% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
2-Propenoic acid, oxybis(methyl-2,1-ethanediyl) ester	57472-68-1	30 - 40%
Acrylate Monomer	Proprietary	15 - 20%
2-Hydroxy-2-methylpropiophenone	7473-98-5	5 - 10%
Adhesion Promoter	Proprietary	1 - 5%
Talc	14807-96-6	1 - 5%
Silicon dioxide	7631-86-9	1 - 5%
Methacrylate	Proprietary	1 - 5%
Tripropylene glycol diacrylate	42978-66-5	1 - 5%
2-Propenoic acid,	15625-89-5	<1%
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]methyl]-1,3-propanediyl] ester		
Polyester Acrylate	PROPRIETARY	<1%

Oxybis(methyl-2,1-ethanediyl) diacrylate	57472-68-1	<1%
Modified Polyether Acrylate	PROPRIETARY	<1%
Modified polyether acrylate	Proprietary	<1%
Polyester acrylate	Proprietary	<1%
Modified Polyether acrylate	Proprietary	<1%
2,6-Di-tertbutyl-4-methylphenol	128-37-0	<1%

The exact percentage (concentration) of composition has been withheld as a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

General advice: Show this safety data sheet to the doctor in attendance. Remove contaminated

clothing and shoes. Wash contaminated clothing before re-use. Wash off with soap

and water. If symptoms persist, call a physician

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Call a physician immediately.

Skin contact: Remove and wash contaminated clothing before re-use. Wash off immediately with

soap and plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do

not induce vomiting without medical advice. Never give anything by mouth to an

unconscious person

Inhalation: Move to fresh air in case of accidental inhalation of vapors. If not breathing, give

artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

Note to physician: Treat symptomatically.

Medical condition

aggravated by exposure:

Dermatitis.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use dry chemical, CO2, water spray or `alcohol` foam. Do not use water with full jet.

Specific hazards: Do not allow material to contaminate ground water system.

Special protective equipment for

fire-fighters:

As in any fire, wear self-contained breathing apparatus pressure-demand,

MSHA/NIOSH (approved or equivalent) and full protective gear

Specific methods: Water mist may be used to cool closed containers

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Ensure adequate ventilation. Do not breathe vapour/dust. Use personal protective

equipment. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Environmental precautions: Do not flush into surface water or sanitary sewer system. Prevent further leakage or

spillage if safe to do so.

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal

binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling

Technical Provide sufficient air exchange and/or exhaust in work rooms.

measures/precautions:

Safe handling advice: In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe

vapors or spray mist. Wear personal protective equipment. Avoid contact with skin and

eyes. Wash thoroughly after handling.

Storage

Technical measures/storage

conditions:

Store at room temperature in the original container.

Incompatible products: Strong oxidizing agents

Safe storage temperature: 40 - 100 ° F

Shelf life: 12 months

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH Exposure Limits	OSHA TWA (final)	NIOSH - Pocket Guide
Talc	2 mg/m³ (TWA)	None	2 mg/m³ (TWA)
Silicon dioxide	None	None	6 mg/m³ (TWA)
Phosphoric Acid	1 mg/m³ (TWA)	1 mg/m ³	1 mg/m³ (TWA)
	3 mg/m³ (STEL)		3 mg/m³ (STEL)
2,6-Di-tertbutyl-4-methylphenol	2 mg/m³ (TWA)	None	10 mg/m ³ (TWA)

Engineering measures: Ensure adequate ventilation

Personal Protective Equipment:

General: Provide easy access to eyewash/safety shower facilities.

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is

adequate to protect worker health, respiratory protection may be required. Contact

your site safety representative for proper respirator selection.

Eye protection: Wear safety glasses with side shields (or goggles)

Hand protection: Wear chemical-resistant gloves as appropriate for the risk of exposure. Contact your

safety department for specific recommendations

Skin and body protection: Wear protective clothing and appropriate footwear necessary for the risk of exposure.

Contact your health and safety department for specific recommendations

Hygiene measures: Handle in accordance with sound chemical hygiene practices. Wear the appropriate

PPE. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke while using chemicals.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Appearance Blue

Odor Vinegar-like

Odor Threshold No information available

pH concentrate: No information available

pH DilutionNo information available

Melting/freezing point

No information available

Boiling Point/Range No information available

Flash Point > 98.89 °C / > 210 °F

Method Closed cup

Evaporation rateNo information available

Flammability Limits in Air

upper flammability limitNo information availablelower flammability limitNo information available

VOC Content Product (lb/gal) 0.00

VOC Content Product (g/L) 0.00

VOC less water and exempt (lb/gal) 0.00

VOC less water and exempt (g/L) 0.00

Solids (% w/w): 99.99

Solids (% v/v): 99.99

Vapor pressure No information available

Vapor density No information available

Specific Gravity (g/cc, 15 C) 1.174

Bulk Density (lb/gal, 15 C) 9.79

Water Solubility Slightly soluble

Solubility in other solvents

No information available

Partition coefficient: n-octanol/water No information available

Autoignition temperature No information available

Decomposition TemperatureNo information available

Kinematic viscosity 30-44 sec, Zahn Cup #2

Dynamic viscosity

No information available

Molecular Weight No information available

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Conditions to avoid: None known.

Materials to avoid: Strong oxidizing agents.

Hazardous decomposition products: Combustion products:. Carbon oxides.

Hazardous Polymerization: No information available.

11. TOXICOLOGICAL INFORMATION

No toxicological information is available on the product. Data obtained on components are summarized below.

Information on likely routes of exposure

Inhalation May cause irritation of respiratory tract.

Eye Contact Causes serious eye damage.

Skin Contact Irritating to skin. May cause sensitization by skin contact.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Propenoic acid,	= 4600 mg/kg (Rat)	-	-
oxybis(methyl-2,1-ethanediyl) ester	Oral LD50 Rat 4600		
	mg/kg (Source: NLM_CIP)		
Acrylate Monomer	-	-	-
2-Hydroxy-2-methylpropiophenone	= 1694 mg/kg (Rat)	-	-
	Oral LD50 Rat 1694		
	mg/kg (Source: NLM_CIP)		
Adhesion Promoter	-	-	-
Talc	-	-	-
Silicon dioxide	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>2.2 mg/L (Rat) 4 h
	Oral LD50 Rat >5000	Dermal LD50 Rabbit	
	mg/kg (Source: IUCLID)	>2000 mg/kg (Source:	
		IUCLID)	
Methacrylate	-	-	-
Tripropylene glycol diacrylate	= 6200 mg/kg (Rat)	> 2 g/kg(Rabbit)	-
	Oral LD50 Rat 6200	Dermal LD50 Rabbit >2	
	mg/kg (Source: NLM_CIP)	g/kg (Source: NLM_CIP)	
2-Propenoic acid,	-	= 5000 mg/kg (Rabbit)	-
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]m		Dermal LD50 Rabbit 5000	
ethyl]-1,3-propanediyl] ester		mg/kg (Source: NLM_CIP)	
Polyester Acrylate	-	-	-
Oxybis(methyl-2,1-ethanediyl) diacrylate	= 4600 mg/kg (Rat)	-	-
	Oral LD50 Rat 4600		
	mg/kg (Source: NLM_CIP)		
Modified Polyether Acrylate	-	-	-
Modified polyether acrylate	-	-	-
Polyester acrylate	-	-	-
Modified Polyether acrylate	-	-	-
2,6-Di-tertbutyl-4-methylphenol	= 890 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
	Oral LD50 Rat 890 mg/kg		
	(Source: NLM_CIP)	mg/kg (no deaths	
		occurred, Source:	
		JAPAN_GHS)	

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

Carcinogenicity

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

carent	ogen		
Chemical Name	IARC Carcinogens	NTP	OSHA -
			Select Carcinogens
2-Propenoic acid,	Not listed	Not listed	Not listed
oxybis(methyl-2,1-ethanediyl) ester			
Acrylate Monomer	Not listed	Not listed	Not listed
2-Hydroxy-2-methylpropiophenone	Not listed	Not listed	Not listed
Adhesion Promoter	Not listed	Not listed	Not listed
Talc	Group 2B	Not listed	Present

	Group 3		
Silicon dioxide	Group 3	Not listed	Not listed
Methacrylate	Not listed	Not listed	Not listed
Tripropylene glycol diacrylate	Not listed	Not listed	Not listed
2-Propenoic acid,	Not listed	Not listed	Not listed
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]m			
ethyl]-1,3-propanediyl] ester			
Polyester Acrylate	Not listed	Not listed	Not listed
Oxybis(methyl-2,1-ethanediyl) diacrylate	Not listed	Not listed	Not listed
Modified Polyether Acrylate	Not listed	Not listed	Not listed
Modified polyether acrylate	Not listed	Not listed	Not listed
Polyester acrylate	Not listed	Not listed	Not listed
Modified Polyether acrylate	Not listed	Not listed	Not listed
2,6-Di-tertbutyl-4-methylphenol	Group 3	Not listed	Not listed

Sensitization Product contains a component that is classified as a skin sensitizer. No studies have

been conducted on the product itself.

Mutagenic effects: No information available.

Reproductive Toxicity No information available.

Developmental ToxicityNo information available.

Teratogenic No information available.

Specific target organ systemic toxicity (single exposure)

No information available.

Specific target organ systemic toxicity (repeated exposure)

No information available.

Aspiration hazard Based on viscosity and/or components, not expected to be an aspiration hazard.

Additional information on toxicological effects

No information available

12. ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects

Chemical Name	Ecotoxicity - Fish Species	Ecotoxicity - Freshwater	Ecotoxicity - Water Flea
	Data:	Algae Data:	Data:
2-Propenoic acid,	No data	No data	No data
oxybis(methyl-2,1-ethanediyl) ester			
Acrylate Monomer	No data	No data	No data
2-Hydroxy-2-methylpropiophenone	LC50 (Leuciscus idus -	EC50 (Scenedesmus sp	No data
	48h) = 160 mg/l	72h) = 0.64 mg/l	
Adhesion Promoter	No data	No data	No data

Talc	> 100 g/L LC50	No data	No data
Silicon dioxide	= 5000 mg/L LC50	=7600mg/L	EC50 (Ceriodaphnia
		= 440 mg/L EC50	dubia - 48h) = 7600
			mg/L
Methacrylate	No data	No data	No data
Tripropylene glycol diacrylate	No data	=88.7mg/L	No data
		> 28 mg/L EC50	
2-Propenoic acid,	No data	No data	No data
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]m			
ethyl]-1,3-propanediyl] ester			
Polyester Acrylate	No data	No data	No data
Oxybis(methyl-2,1-ethanediyl) diacrylate	LC50 (Leuciscus idus	No data	No data
	melanotous -96h) = 2.15 -		
	4.64 mg/l - OECD 203		
Modified Polyether Acrylate	No data	No data	No data
Modified polyether acrylate	No data	No data	No data
Polyester acrylate	No data	No data	No data
Modified Polyether acrylate	No data	No data	No data
2,6-Di-tertbutyl-4-methylphenol	No data	= 6 mg/L EC50 > 0.42	No data
		mg/L EC50	

21.72% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Octanol/water partition coefficient
2-Propenoic acid, oxybis(methyl-2,1-ethanediyl) ester	-
Acrylate Monomer	-
2-Hydroxy-2-methylpropiophenone	-
Adhesion Promoter	-
Talc	-
Silicon dioxide	-
Methacrylate	-
Tripropylene glycol diacrylate	2.77
2-Propenoic acid,	-
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]methyl]-1,3-propane	
diyl] ester	
Polyester Acrylate	-
Oxybis(methyl-2,1-ethanediyl) diacrylate	-
Modified Polyether Acrylate	-
Modified polyether acrylate	-
Polyester acrylate	
Modified Polyether acrylate	-
2,6-Di-tertbutyl-4-methylphenol	4.17

Mobility:	No data available
noomity.	ivo data avallabic

Ozone: No data available

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused

products:

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging:Do not re-use empty containers

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal

binder, sawdust) Sweep up and shovel into suitable containers for disposal

14. TRANSPORT INFORMATION

U. S. DEPARTMENT OF TRANSPORTATION:

Proper shipping name: Not regulated

TDG (CANADA):

Proper shipping name: Not regulated

IMDG/IMO:

Proper shipping name: Not regulated

IATA/ICAO:

Proper shipping name: Not regulated

15. REGULATORY INFORMATION

Federal Regulations

OSHA Hazard Communication

Standard:

This product is considered to be hazardous under the OSHA Hazard Communication

Standard.

CERCLA/SARA Information:

SARA (311, 312) hazard class: See GHS Classification in Section 2 for hazard class information.

Chemical Name	Hazardous Substances	Extremely Hazardous	SARA 313 Emission
	and RQs	Substances and TPQs	Reporting
2-Propenoic acid,	Not listed	Not listed	Not listed
oxybis(methyl-2,1-ethanediyl) ester			
Acrylate Monomer	Not listed	Not listed	Not listed
2-Hydroxy-2-methylpropiophenone	Not listed	Not listed	Not listed
Adhesion Promoter	Not listed	Not listed	Not listed
Talc	Not listed	Not listed	Not listed
Silicon dioxide	Not listed	Not listed	Not listed
Methacrylate	Not listed	Not listed	Not listed
Tripropylene glycol diacrylate	Not listed	Not listed	Not listed

2-Propenoic acid,	Not listed	Not listed	Not listed
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]m			
ethyl]-1,3-propanediyl] ester			
Polyester Acrylate	Not listed	Not listed	Not listed
Oxybis(methyl-2,1-ethanediyl) diacrylate	Not listed	Not listed	Not listed
Modified Polyether Acrylate	Not listed	Not listed	Not listed
Modified polyether acrylate	Not listed	Not listed	Not listed
Polyester acrylate	Not listed	Not listed	Not listed
Modified Polyether acrylate	Not listed	Not listed	Not listed
2,6-Di-tertbutyl-4-methylphenol	Not listed	Not listed	Not listed

Clean Air and Clean Water Acts:

Chemical Name	Hazardous Air	CWA - Hazardous	CWA - Toxic	CWA - Priority
	Pollutants	Substances	Pollutants	Pollutants
2-Propenoic acid,	Not listed	Not listed	Not listed	Not listed
oxybis(methyl-2,1-ethanediyl)				
ester				
Acrylate Monomer	Not listed	Not listed	Not listed	Not listed
2-Hydroxy-2-methylpropiophenone	Not listed	Not listed	Not listed	Not listed
Adhesion Promoter	Not listed	Not listed	Not listed	Not listed
Talc	Not listed	Not listed	Not listed	Not listed
Silicon dioxide	Not listed	Not listed	Not listed	Not listed
Methacrylate	Not listed	Not listed	Not listed	Not listed
Tripropylene glycol diacrylate	Not listed	Not listed	Not listed	Not listed
2-Propenoic acid,	Not listed	Not listed	Not listed	Not listed
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1				
-yl)oxy]methyl]-1,3-propanediyl]				
ester				
Polyester Acrylate	Not listed	Not listed	Not listed	Not listed
Oxybis(methyl-2,1-ethanediyl) diacrylate	Not listed	Not listed	Not listed	Not listed
Modified Polyether Acrylate	Not listed	Not listed	Not listed	Not listed
Modified polyether acrylate	Not listed	Not listed	Not listed	Not listed
Polyester acrylate	Not listed	Not listed	Not listed	Not listed
Modified Polyether acrylate	Not listed	Not listed	Not listed	Not listed
2,6-Di-tertbutyl-4-methylphenol	Not listed	Not listed	Not listed	Not listed

U.S. STATE REGULATIONS (RTK):

Chemical Name	California	PARTK	MI Critical	NJRTK	MARTK
	Proposition 65		Materials		
2-Propenoic acid,	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
oxybis(methyl-2,1-ethan					
ediyl) ester					
Acrylate Monomer	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
2-Hydroxy-2-methylpropi	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
ophenone					
Adhesion Promoter	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Talc	Not Listed	Present	Not Listed	1773	Present
Silicon dioxide	Not Listed	Present	Not Listed	1655	Present

Methacrylate	Not Listed				
Tripropylene glycol diacrylate	Not Listed				
2-Propenoic acid, 1,1"-[2-ethyl-2-[[(1-oxo-2 -propen-1-yl)oxy]methyl]- 1,3-propanediyl] ester	Not Listed				
Polyester Acrylate	Not Listed				
Oxybis(methyl-2,1-ethan ediyl) diacrylate	Not Listed				
Modified Polyether Acrylate	Not Listed				
Modified polyether acrylate	Not Listed				
Polyester acrylate	Not Listed				
Modified Polyether acrylate	Not Listed				
2,6-Di-tertbutyl-4-methyl phenol	Not Listed	Present	Not Listed	0814	Present

California Proposition 65 Status: May contain trace amounts of listed chemicals: Benzophenone

CANADIAN REGULATIONS:

Chemical Name	CEPA Schedule I	Challenge Substances
2-Propenoic acid,	Not listed	Not listed
oxybis(methyl-2,1-ethanediyl) ester		
Acrylate Monomer	Not listed	Not listed
2-Hydroxy-2-methylpropiophenone	Not listed	Not listed
Adhesion Promoter	Not listed	Not listed
Talc	Not listed	Not listed
Silicon dioxide	Not listed	Not listed
Methacrylate	Not listed	Not listed
Tripropylene glycol diacrylate	Not listed	Not listed
2-Propenoic acid,	Not listed	Not listed
1,1"-[2-ethyl-2-[[(1-oxo-2-propen-1-yl)oxy]m		
ethyl]-1,3-propanediyl] ester		
Polyester Acrylate	Not listed	Not listed
Oxybis(methyl-2,1-ethanediyl) diacrylate	Not listed	Not listed
Modified Polyether Acrylate	Not listed	Not listed
Modified polyether acrylate	Not listed	Not listed
Polyester acrylate	Not listed	Not listed
Modified Polyether acrylate	Not listed	Not listed
2,6-Di-tertbutyl-4-methylphenol	Not listed	Not listed

INVENTORY STATUS:

United States TSCA Inventory: This product complies with TSCA

Canada DSL/NDSL Inventory List

All components except one are on the DSL Inventory List. The

remaining ingredient is listed on the NDSL Inventory List.

16. OTHER INFORMATION

Sources of key data used to compile Material safety data sheets of the ingredients. **the data sheet:**

Prepared by: Quaker Chemical Corporation -Safety, Health and Environmental Affairs Group - US

Revision Date: 02/13/2018 **Reason for revision:** New formulation.

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

Disclaimer

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. The company referenced in this Safety Data Sheet assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of such company.

End of Safety Data Sheet
