

SAFETY DATA SHEET



Date Prepared : 05/26/2015
 MSDS No : 11790464_PL34502
 Date-Revised : 09/18/2017
 Revision No : 5

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: 40101 SOLUTION 10 MED BLUE 50ML

MANUFACTURER

MRO Solutions L.L.C.
 5645 West Howard Street
 Niles, IL 60714
Service Number: (847) 588-2480

24 HR. EMERGENCY TELEPHONE NUMBERS

MRO Solutions – For Chemical Emergency/Information
 (847) 588-2480

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Eye Damage, Category 1
 Skin Irritation, Category 2
 Specific Target Organ Toxicity (Repeated Exposure), Category 2
 Specific Target Organ Toxicity (Single Exposure), Category 3

Environmental:

Aquatic, Chronic 3

GHS LABEL ELEMENTS

Note: If this product is a consumer product it is labeled in accordance with the Consumer Product Safety Commission regulations and not OSHA regulations. The requirements for the labeling of consumer products take precedence over OSHA labeling so the actual product label will not contain the OSHA label elements shown below on this SDS.



Corrosion



Health hazard



Exclamation mark

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H315: Causes skin irritation.
 H318: Causes serious eye damage.
 H335: May cause respiratory irritation.
 H373: May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
 H412: Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

Prevention:

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P101: If medical advice is needed, have product container or label at hand.
 P102: Keep out of reach of children.
 P103: Read label before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P262: Do not get in eyes, on skin, or on clothing.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P305+310+P338+351: 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.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P405: Store locked up.

Disposal:

P501: Dispose of in a manner consistent with federal, state, and local regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Polyethylene Glycol Dimethacrylate	25 - 60	25852-47-5
2,6-di-tert-butyl-p-cresol	< 5	128-37-0
Ethylene glycol	< 5	107-21-1
Benzoquinone	< 5	106-51-4
Cumene Hydroperoxide	0.8 - 0.9	80-15-9
Maleic acid	< 5	110-16-7
Cumene	0.02 - 0.155	98-82-8

4. FIRST AID MEASURES

EYES: Immediately flush thoroughly with water for 20 minutes, while holding the eye lids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get immediate medical attention.

SKIN: Remove contaminated clothing and shoes. Flush skin with water for several minutes. Get medical attention if irritation occurs. Launder clothing before re-use.

INGESTION: Do not induce vomiting unless directed to do so by medical personnel. If irritation or discomfort occurs, get medical attention.

INHALATION: Remove victim to fresh air. Get medical attention if irritation or symptoms of exposure persists.

ADDITIONAL INFORMATION: May cause severe eye irritation or burns with possible eye damage. May cause moderate skin and respiratory irritation. Prolonged inhalation may damage the lungs. Immediate medical attention is required for eye contact.

5. FIRE FIGHTING MEASURES

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EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and nitrogen, and other toxic or irritating compounds.

EXPLOSION HAZARDS: None known.

FIRE FIGHTING EQUIPMENT: Wear an approved, positive pressure, self-contained breathing apparatus and full protective clothing. Use water to cool exposed containers and disperse flammable vapors. Contain water used in firefighting from entering sewers or natural waterways.

FIRE EXPLOSION: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Cover with an inert absorbent material and collect into an appropriate container for disposal.

LARGE SPILL: Contain spill with dike to prevent entry into sewers. Absorb liquid and place in sealed container for disposal.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

LAND SPILL: Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

AIR SPILL: Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

GENERAL PROCEDURES: Avoid contact with eyes, skin, or clothing. Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles, and respirator if needed. Avoid breathing vapors or mists. Ventilate area.

7. HANDLING AND STORAGE

HANDLING: Avoid breathing mists or vapors. Use with adequate ventilation. Avoid contact with the eyes, skin, and clothing. Wear appropriate protective clothing. Wash thoroughly after handling. Keep containers closed when not in use.

STORAGE: Store in a container in a cool, well-ventilated location away from incompatible materials. Keep container tightly closed when not in use. Ideal storage temperature <25C (<77F). Keep in original container. Keep away from sunlight and sources of ignition. Protect from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m ³
2,6-di-tert-butyl-p-cresol	ACGIH TLV	TWA		2
Ethylene glycol	ACGIH TLV	TWA	[1]	100 [1]
Benzoquinone	OSHA PEL	TWA	0.1	0.4
	ACGIH TLV	TWA	0.1	0.44
Cumene Hydroperoxide	OSHA PEL	TWA	50	245
Cumene	OSHA PEL	TWA	50	245
	ACGIH TLV	TWA	50	246

OSHA TABLE COMMENTS:
 1. Aerosol only

ENGINEERING CONTROLS: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical safety goggles recommended where splashing is possible.

SKIN: Impervious gloves are suggested to prevent skin contact. Contact your glove supplier for selection assistance.

RESPIRATORY: In operations where the occupational exposure limits are exceeded, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form, and concentration. Follow applicable regulations and good Industrial Hygiene practice.

PROTECTIVE CLOTHING: Impervious clothing is require to prevent skin contact and contamination of personal clothing.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling.

OTHER USE PRECAUTIONS: An eye was facility and safety shower should be available in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mild odor

ODOR THRESHOLD: No data available

APPEARANCE: Blue liquid

COLOR: Blue

pH: No data available

PERCENT VOLATILE: No data available

FLASHPOINT AND METHOD: > 93°C (200°F) Pensky-Martens OC

FLAMMABLE LIMITS: Not data available

AUTOIGNITION TEMPERATURE: No data available

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VAPOR PRESSURE: < 5 mmHg at 27°C (80°F)

VAPOR DENSITY: No data available

BOILING POINT: > 149°C (300°F)

FREEZING POINT: No data available

MELTING POINT: No data available

THERMAL DECOMPOSITION: No data available

SOLUBILITY IN WATER: Negligible in water

EVAPORATION RATE: No data available

SPECIFIC GRAVITY: 1.09

VISCOSITY #1: 800 to 1600 Centipoise

(VOC): < 3 %

10. STABILITY AND REACTIVITY

REACTIVITY: Not reactive

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur. Product may react if exposed to amines, inert gases, metallic salts, heat sources or oxidizers.

STABILITY: Stable under normal storage and handling conditions.

CONDITIONS TO AVOID: Avoid temperatures exceeding 100F/38C and incompatible materials.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous reactions are possible when exposed to incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce oxides of carbon and nitrogen and other toxic and irritating compounds.

INCOMPATIBLE MATERIALS: Strong acids and alkalis, reactive metals and strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Polyethylene Glycol Dimethacrylate	> 2000 mg/kg		
2,6-di-tert-butyl-p-cresol	890 mg/kg (rat)	> 2000 mg/kg (rat)	
Ethylene glycol	> 5000 mg/kg (rat)	10626 mg/kg (rabbit)	
Benzoquinone	130 mg/kg (rat)		
Cumene Hydroperoxide	382 mg/kg (rat)	133 mg/kg (rabbit)	220 ppm per 4 hr (rat)
Maleic acid	2870 mg/kg (rat)	2620 mg/kg (rabbit)	
Cumene	> 2000 mg/kg (rat)	10578 mg/kg (rabbit)	8000 ppm per 4 hr (rat)

SKIN CORROSION/IRRITATION: May cause moderate skin irritation. Cumene Hydroperoxide: Corrosive to rabbit skin. A 10% solution when tested in rabbits for skin irritation, induced erythema on 3 rabbits.

SERIOUS EYE DAMAGE/IRRITATION: Causes severe irritation and burns. Permanent eye injury is likely. Cumene Hydroperoxide: Severely irritating to rabbit eyes.

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RESPIRATORY OR SKIN SENSITISATION: Inhalation of vapors or mists may cause moderate mucous membrane and respiratory irritation.

GERM CELL MUTAGENICITY: No data available

CARCINOGENICITY

Chemical Name	IARC Status
2,6-di-tert-butyl-p-cresol	3
Benzoquinone	3

NOTES: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH, and the EU CLP.

REPRODUCTIVE TOXICITY: No data available

STOT-SINGLE EXPOSURE: No data available

STOT-REPEATED EXPOSURE: Cumene Hydroperoxide: Male and female rats were exposed daily (6 hr/day, 5 days/week) to 1, 6, 31 and 124 mg/m³ cumene hydroperoxide delivered as aerosol over a period of 3 months. Inhalation of 124 mg/m³ cumene hydroperoxide for 5 consecutive days resulted in decreased body weight and death of 6/10 males and 3/10 females, therefore exposure of this group was terminated after 5 day and all surviving rats were killed on day 12 of the study. Primary toxicological effects following inhalation of 124 mg/m³ cumene hydroperoxide were consistent with those caused by a primary tissue irritant, other changes were judged by the authors as secondary effects and as caused by stress. These included thymic atrophy, depletion of lymphoid tissue in the germinal centers of some lymph nodes and the spleen, decreased lipid content of the liver and decreased circulating white blood cells.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

ECOTOXICOLOGICAL INFORMATION: No data available

BIOACCUMULATION/ACCUMULATION: No data available

AQUATIC TOXICITY (ACUTE): This product is classified as harmful to the aquatic environment with long-term adverse effects. Releases to the environment should be avoided.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in a manner consistent with federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: NOT REGULATED

AIR (ICAO/IATA)

SHIPPING NAME: NOT REGULATED

VESSEL (IMO/IMDG)

SHIPPING NAME: NOT REGULATED

15. REGULATORY INFORMATION

UNITED STATES

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SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Immediate (acute) health and Delayed (chronic) health hazards.

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: Section 313: Cumene hydroperoxide (CAS 80-15-9), less than 3%.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS
Benzoquinone	< 5	106-51-4

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Contains Cumene hydroperoxide (CAS 80-15-9), less than 3%.

Chemical Name	Wt.%	CERCLA RQ
Benzoquinone	< 5	10
Cumene Hydroperoxide	0.8 - 0.9	10
Cumene	0.02 - 0.155	5,000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Polyethylene Glycol Dimethacrylate	25852-47-5
2,6-di-tert-butyl-p-cresol	128-37-0
Ethylene glycol	107-21-1
Benzoquinone	106-51-4
Cumene Hydroperoxide	80-15-9
Maleic acid	110-16-7
Cumene	98-82-8

TSCA STATUS: All components are listed on or are exempt from listing on the Toxic Substances Control Act.

CALIFORNIA PROPOSITION 65: WARNING: This product can expose you to chemicals including Cumene, which is known to the State of California to cause cancer, and Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Chemical Name	Wt.%	Listed
Ethylene glycol	< 5	Developmental Toxicity
Cumene	0.02 - 0.155	Cancer

16. OTHER INFORMATION

APPROVED BY: Regulatory Affairs Manager

PREPARED BY: Regulatory Affairs Manager

Date-Revised: 09/18/2017

REVISION SUMMARY: This MSDS replaces the 09/26/2016 MSDS. Revised: **Section 1:** 24 HR. EMERGENCY TELEPHONE

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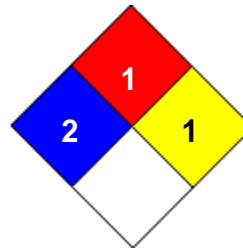
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NUMBERS, MSDS No. **Section 2:** . **Section 3:** Wt.%. **Section 4:** ACUTE TOXICITY, ADDITIONAL INFORMATION, CHRONIC EFFECTS, EYES, INGESTION, INHALATION, SIGNS AND SYMPTOMS OF OVEREXPOSURE (INGESTION, INHALATION, SKIN, SKIN ABSORPTION), SKIN. **Section 5:** FIRE FIGHTING EQUIPMENT, FIRE FIGHTING PROCEDURES, FLAMMABLE CLASS, HAZARDOUS COMBUSTION PRODUCTS, SENSITIVE TO STATIC DISCHARGE, SENSITIVITY TO IMPACT. **Section 6:** AIR SPILL, GENERAL PROCEDURES, LAND SPILL, SMALL SPILL, WATER SPILL. **Section 7:** ELECTROSTATIC ACCUMULATION HAZARD, GENERAL PROCEDURES, HANDLING, LOADING TEMPERATURE, LOADING/UNLOADING VISCOSITY, STORAGE, STORAGE PRESSURE, STORAGE TEMPERATURE. **Section 8:** ENGINEERING CONTROLS, OTHER USE PRECAUTIONS, PERSONAL PROTECTIVE EQUIPMENT (EYES AND FACE, RESPIRATORY, PROTECTIVE CLOTHING). **Section 9:** DENSITY, FLASHPOINT AND METHOD, ODOR THRESHOLD, SOLUBILITY IN WATER, SPECIFIC GRAVITY, VAPOR PRESSURE. **Section 10:** HAZARDOUS DECOMPOSITION PRODUCTS, HAZARDOUS POLYMERIZATION, STABILITY, STABLE. **Section 11:** CARCINOGENICITY, GERM CELL MUTAGENICITY, REPRODUCTIVE TOXICITY, , STOT-REPEATED EXPOSURE, STOT-SINGLE EXPOSURE, , SKIN CORROSION/IRRITATION. **Section 12:** BIOACCUMULATION/ACCUMULATION, AQUATIC TOXICITY (ACUTE). **Section 14:** AIR (ICAO/IATA) - SHIPPING NAME DOT (DEPARTMENT OF TRANSPORTATION) - PROPER SHIPPING NAME ROAD AND RAIL (ADR/RID) - PROPER SHIPPING NAME SHIPPING NAME, VESSEL (IMO/IMDG) - SHIPPING NAME. **Section 15:** CALIFORNIA PROPOSITION 65.

HMIS RATING

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY		1
PHYSICAL HAZARD		1
PERSONAL PROTECTION		B

NFPA CODES



HMIS RATINGS NOTES: Safety glasses and gloves are recommended for usage.

MANUFACTURER DISCLAIMER:

To the best of our knowledge, the information contained herein is accurate. However, MRO Solutions does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.