

GRUBER MA646 ACTIVATOR

This product appears in the following stock number(s):

MM200, MM200-5

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Trade name:** GRUBER SYSTEMS MA646 ACTIVATOR**General use:** This information applies only to the activator intended for use with the Gruber Adhesive MM Series. After proper mixing and curing, the product is not hazardous.**Chemical family:** Organic peroxide solution**MANUFACTURER**Gruber Systems-East
355 Gus Hipp Boulevard
Rockledge, FL 32955**EMERGENCY INFORMATION****Emergency Telephone Numbers**
(CHEMTREC): (800) 255-3924
Other Calls: (321)639-0431**2. COMPOSITION/INFORMATION OF INGREDIENTS****HAZARDOUS CONSTITUENTS****Exposure Limits**

Constituent	Abbr.	CAS No.	Weight Percent	ACGIH TLV	OSHA PEL	Other Limits
Benzoil peroxide	BPO	94360	1-20	5 mg/m ³	5mg/m ³	5 ppm (CANADA)
Dibutyl phthalate	DBP	84742	40-90	5mg/m ³	5 mg/m ³	5 mg/m ³ (CANADA)
Butyl benzyl phthalate	BBP	85687	1-10	n/e	n/e	5 mg/m ³

"TLV" means the Threshold Limit Value exposure (eight-hour, time weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance, form, odor: White paste with little odor.

CAUTION! Reactive. Possible eye irritant. Keep away from heat, sparks, open flames. Do not store near combustibles. Wash thoroughly after handling.

Potential Health Effects:

Primary routes of exposure: Skin Contact Skin Absorption Eye Contact Inhalation Ingestion

Symptoms of acute overexposure:

Skin: No acute effects reported for benzoyl peroxide at this dilution, although the pure peroxide can cause dermatitis.

Eyes: May cause mild irritation.

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Inhalation:
Unlikely because of low vapor pressure of the mixture. Pure benzoyl peroxide causes respiratory irritation.

Ingestion:
Ingestion of di-n-butyl phthalate may cause hallucinations, distorted perceptions, nausea, or vomiting and kidney, ureter or bladder change

Effects of chronic overexposure:
Pure benzoyl peroxide is reported to be an allergen.

Carcinogenicity -- OSHA regulated: No
International Agency for Research on Cancer: No
Cancer-suspect constituent(s) : None

National Toxicology Program: No

Medical conditions which may be aggravated by exposure:
None reported

4. FIRST AID MEASURES

First aid for eyes:
Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:
Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention.

First aid for ingestion:
Do not induce vomiting. If patient is conscious, dilute by giving water. Get prompt medical attention.

5. FIRE FIGHTING MEASURES

General fire and explosion characteristics:
Decomposition products can be flammable. Self accelerating decomposition temperature is 129 F (estimated).

Extinguishing media:

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): n/a

Method: (No flashpoint method for peroxides)

Explosive limits in air (percent) -- Lower: n/d

Upper: n/d

Special firefighting procedures:

If large amounts of material are involved, evacuate area and fight fire from safe distance. Cool fire-exposed containers with water.

Unusual fire and explosion hazards:

Benzoyl peroxide can decompose violently if heated strongly while confined.

Hazardous products of combustion:

Carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Evacuate area; eliminate ignition sources; wear protective clothing and overshoes.

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Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

Absorb spill on inert material such as vermiculite and transfer with nonsparking tools to impervious container.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Notify appropriate authorities as required.

7. HANDLING AND STORAGE

Handling precautions:

- Use nonsparking equipment.
- Do not get in eyes, on skin, or on clothing.
- Avoid breathing vapors.
- Use only as directed; avoid uncontrolled mixing with other materials, especially polymerizable or combustible materials.
- Dibutyl phthalate is a DOT and IMDG listed marine pollutant.

Storage:

- Keep well closed in a cool, dark place. Storage above 100 F will reduce useful life of the material.
- Keep from heat, sparks, and open flame. Exposure to high heat can cause violent reaction.
- Do not store near combustibles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Local exhaust is recommended for confined areas. General mechanical ventilation is adequate for normal use.

Other engineering controls :

Have emergency eye wash and safety showers in area.

Personal protective equipment

Eye and face protection:

Safety glasses with side shields.

Skin protection:

Chemical resistant rubber gloves are recommended.

Respiratory protection:

None required at normal handling temperatures.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.04	Boiling point (°F):	n/a
Melting point (°F):	0	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	n/e at 0 °F	Evaporation rate (butyl acetate = 1):	<<1
VOC (grams/liter):	0	Solubility in water:	Slight
Percent volatile by volume:	<1	pH (5% solution or slurry in water):	Neutral
Percent solids by weight:	99		

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization will not occur.

Conditions to avoid :

Heat, spark, open flame, contamination, and friction

Incompatible materials:

Strong acids and bases, strong oxidizers, amines, polymerization accelerators.

Hazardous products of decomposition:

Flammable and toxic fumes including organic acids; carbon monoxide and carbon dioxide from complete combustion

Conditions under which hazardous polymerization may occur:

None

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 5000 mg/kg

BPO: slightly toxic to practically non-toxic to rats. DBP: high oral doses given to pregnant animals produced minor abnormalities in off-spring.

Acute dermal effects: LD50 (rabbit): No data

BPO: non-irritating to rabbits (4-hr exposure). Repeated controlled human skin contact studies produced skin allergy.

Acute Inhalation effects: LC50 (rat): n/d

BPO: practically non-toxic to rats (LC50 > 22.4 mg/L, 4-hr)

Exposure: 4 hours.

Eye irritation:

BPO: severely irritating to rabbits. DBP: slight irritant (human)

Subchronic effects:

DBP: 90 day dermal rabbit study, LOEL at 4200 mg/kg/day affected kidney. Oral animal studies showed effects of the testes, liver, and reduced weight gain.

Carcinogenicity, teratogenicity, and mutagenicity:

BPO: both positive and negative (mutagenic and non-mutagenic) responses occurred in tests with animal or bacterial cells. Repeated skin application with a known carcinogen enhanced skin tumor production in mice by the carcinogen. DBP: animal studies showed teratogenic and reproductive effects. Mouse lymphoma assay was positive with activation and negative without activation. Dibutyl Phthalate has been shown to cause birth defects in laboratory

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animal studies. The relevance of these findings to humans is unknown.

Other chronic effects:

BPO: Rats fed dose of 2800 mg/kg for 2-yrs showed increase incidence of testicular atrophy.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Benzoyl peroxide	7710 mg/kg	n/d	n/d
Dibutyl phthalate	8000 mg/kg	>20 mL/kg	4250 mg/m ³
Butyl benzyl phthalate	2330 mg/kg	n/d	n/d

n/d = not determined

12 ECOLOGICAL INFORMATION

Ecotoxicity:

96 hr, LC50 guppy (semi-static) = 2.0 mg/l, moderately toxic. DBP: moderate BOD, may cause oxygen depletion in aqueous systems, a high potential to affect some aquatic organisms, a low potential to affect germination &/or early growth of some plants and seedlings.

Mobility and persistence:

BPO: almost 60 % biodegradation was reached after 28 days in the closed bottle ready biodegradability test. DBP: expected to biodegrade and not persist for long periods in an aquatic environment.

Environmental fate:

BPO: EC50 = 35 mg/L absorbed to gel for activated sludge respiration inhibition.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

Dispose of in accordance to applicable federal, state, and local regulation. Incineration or fuel blending are the preferred methods of disposal.

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14. TRANSPORT INFORMATION

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
 Technical name: DI-N-BUTYL PHTHALATE
 Hazard class: 9
 UN number: 3082
 Packing group: III
 Emergency Response Guide no.: 171
 IMDG page number:
 Other: < 12 lbs is non-regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.
 Export notification is required under TSCA Sec. 12B -- see below.

The following RCRA code(s) applies to this material if it becomes waste:
 (Dibutyl phthalate)

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Benzoyl peroxide	No	Yes	None	Not required
Dibutyl phthalate	No	Yes	10.0	Required
Butyl benzyl phthalate	No	No	100.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard - Reactivity hazard -

Canadian regulations

WHMIS hazard class(es): C; D2B
 All components of this product are on the Domestic Substances List.

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16. OTHER INFORMATION

Hazardous Materials Information System (HMIS) ratings:	Health	Flammability	Reactivity
	1	2	2

Revisions for this issue:

Revisions	
MSDS section	
11	updated toxicology data

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