

METAL WELDER ACTIVATOR

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical family Organic peroxide solution

General information: This information applies only to the activator intended for use with an adhesive. After proper mixing and curing, the product is not hazardous.

MANUFACTURER

ITW Devcon
30 Endicott St.
Danvers, MA 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC) (800) 424-9300
Other calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS	Constituent	Abbr.	CAS No.	Weight percent	Exposure limits		
					ACGIH TLV	OSHA PEL	Other Limits
	Diisobutyl Phthalate	DIBP	84695	20-40	n/e	n/e	n/e
	Benzoyl peroxide	BPO	94360	10-30	5 mg/m 3	5 mg/m [^] 3	5 ppm (Canada)
	Surfactant (<1.4% glycol ethers)		*	< 5	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) as 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, physical form, odor: viscous liquid 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:**

Irritant. Contact at elevated temperatures can cause thermal burns. No acute effects reported for benzoyl peroxide at this dilution, although the pure peroxide can cause dermatitis.

Eyes:

Irritant. Contact at elevated temperatures can cause thermal burns.

Inhalation:

High vapor concentrations are irritating to nose, throat, lungs, and eyes.

Ingestion:

Acute oral toxicity is low. May cause gastric distress. May cause central nervous system depression.

Effects of chronic overexposure:

Pure benzoyl peroxide is reported to be an allergen.

Medical conditions which may be aggravated by exposure:

Preexisting eye, skin and respiratory disorders.

Carcinogenicity -- OSHA regulated: No **ACGIH:** No **National Toxicology Program:** No

International Agency for Research on Cancer: No

Cancer-suspect constituent(s): None

Other effects:

See section 11.

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:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water. 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 if symptoms persist.

First aid for ingestion:

Do NOT induce vomiting. Give two glasses of water to dilute if patient is conscious. Get medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media:

Water Carbon dioxide Dry chemical Foam Alcohol foam

Flash Point (°F): Not available

Method: (No flashpoint method for peroxide)

Explosive limits in air -- Lower: Not available

Upper: Not available

Special firefighting procedures:

If large amounts of material are involved, evacuate area and fight fire from safe distance. Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers with water spray.

Unusual fire and explosion hazards:

Benzoyl peroxide can decompose violently if heated strongly while confined. Flammable gases and vapors may form during decomposition and cause flash back.

Hazardous products of combustion:

When heated to decomposition it emits carbon dioxide, carbon monoxide, biphenyl and other fumes and vapors varying in composition and toxicity.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

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

Cleanup:

Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue. Use non-sparking tools.

Special procedures:

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

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations. Use non-sparking equipment. Bond and ground containers when transferring contents.

Storage precautions:

Store in a cool, dry area away from high temperatures and flames. Storage above 100 F will reduce useful life of the material. Keep from heat, sparks, and open flame. Do not store near combustibles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering controls****Ventilation:**

Local exhaust ventilation is preferred although good general mechanical ventilation is usually adequate for most industrial applications. Local exhaust is recommended for confined areas.

Other engineering controls:

Have emergency shower and eye wash available.

Personal protective equipment**Eye and face protection:**

Safety glasses with side shields.

Skin Protection:

Chemical-resistant gloves and other gear as required to prevent skin contact.

Respiratory protection:

None required at normal handling temperatures and conditions. Use NIOSH approved organic vapor cartridges for uncured activator and dust/particle respirators during grinding/sanding operations of cured product as exposure levels dictate.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.10	Boiling point (°F):	n/d
Melting point (°F):	n/d	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	n/d	Evaporation rate (butyl acetate = 1):	<<1
VOC (grams/liter):	n/d	Solubility in water:	slight
Percent volatile by volume:	n/d	pH (5% solution or slurry in water):	neutral
Percent solids by weight:	n/d		0

10. STABILITY AND REACTIVITY

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

Conditions to avoid:

Heat, spark, open flame, contamination, and friction

Incompatible materials:

Strong acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines), metal salts, reducing agents and accelerators.

Hazardous decomposition products:

Oxides of carbon; biphenyl, flammable and toxic fumes, and other organic substances may be formed during combustion.

Conditions of hazardous polymerization:

Not expected to occur under normal temperatures and pressures.

11. TOXICOLOGICAL INFORMATION**Acute oral effects:**

LD50 (rat): No data available.

BPO: slightly toxic to practically non-toxic to rats.

Acute dermal effects

LD50 (rabbit): No data available.

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

Acute inhalation effects:

LC50 (rat): No data available in 0 hours

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

Eye irritation:

BPO: severely irritating to rabbits.

Subchronic effects

No data available.

Chronic effects

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

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.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat, 4 hours)
Diisobutyl Phthalate	15 g/kg	n/d	n/d
Benzoyl peroxide	7710 mg/kg	n/d	n/d
Surfactant (<1.4% glycol ethers)	n/d	n/d	n/d

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

BPO: 96 hr, LC50 guppy (semi-static) = 2.0 mg/l, moderately toxic.

Mobility and persistence:

BPO: almost 60 % biodegradation was reached after 28 days in the closed bottle ready biodegradability test.

Environmental fate:

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

13. DISPOSAL CONSIDERATIONS**Waste management recommendations:**

If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION**Proper shipping name:** Non-regulated**Technical name:** N/A**Hazard class:** N/A**UN number:** N/A**Packing group:** N/A**IMDG Page no.:** N/A**Emergency Response Guide no.:** N/A**Other:** N/A

15. REGULATORY INFORMATION**U.S. Federal Regulations****TSCA:**

All ingredients of this product are listed, or are exempt from listing, on the TSCA Inventory.

The following RCRA code(s) applies to this material if it becomes waste: None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Diisobutyl Phthalate	No	No	No	Not required
Benzoyl peroxide	No	Yes	No	Not required
Surfactant (<1.4% glycol ethers)	No	Yes	No	Not required

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

Classification of this material for SARA Section 312 hazardous materials inventory reporting:

Immediate health hazard Reactivity hazard

Regulatory notes:

In normal use, the adhesive mixed with this product is polymerized during cure. For purposes of air quality regulations, the maximum amount of VOC (i.e. MMA) emitted is low (less than 10%). Actual emissions are a function of substrate and process and should be considered on an individual basis.

Canadian regulations

WHMIS hazard class(es): D2B

16. OTHER INFORMATION

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