



Material Safety Data Sheet

Issuing Date 23-Nov-2011

Revision Date

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name BPO POWDER
Product Code(s) MC0001
UN-Number UN3106
Recommended Use Catalyst
Product Technology MMA

Supplier Address

Ennis Paint Inc.
5910 North Central Expressway
Suite 1050
Dallas TX 75206
T: 800.331.8118
800.331.8118 (For Technical Inquiries)

Chemical Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Organic Peroxide
Heating may cause a fire
Irritating to eyes, respiratory system and skin
May be harmful if swallowed, inhaled, or absorbed through skin
May produce an allergic reaction

Appearance White

Physical State Solid.

Odor Faint

Potential Health Effects

Acute Toxicity

Eyes	Irritating to eyes.
Skin	May be harmful in contact with skin. Irritating to skin.
Inhalation	May be harmful if inhaled. Irritating to respiratory system.
Ingestion	May be harmful if swallowed. Ingestion may cause irritation to mucous membranes.

Chronic Effects

Repeated contact may cause allergic reactions in very susceptible persons.

Aggravated Medical Conditions

Skin disorders. Respiratory disorders. Pre-existing eye disorders.

Environmental Hazard

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	84-61-7	40-70
Benzoyl peroxide	94-36-0	40-70

4. FIRST AID MEASURES

General Advice	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. Call a physician immediately.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Notes to Physician	Treat symptomatically. May cause sensitization of susceptible persons.
Protection of First-aiders	Use personal protective equipment. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Oxidizer.			
Flash Point	Not applicable.			
Suitable Extinguishing Media	Water spray. Foam. Dry sand. Dry chemical. Carbon dioxide (CO ₂).			
Unsuitable Extinguishing Media	Halons.			
Explosion Data	None			
Sensitivity to Mechanical Impact	None			
Sensitivity to Static Discharge	May be ignited by heat, sparks or flames			
Specific Hazards Arising from the Chemical	Oxidizer. Contact with other material may cause fire. CAUTION: re-ignition may occur. Fine dust dispersed in air may ignite. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. Cool drums with water spray Prevent fire extinguishing water from contaminating surface water or the ground water system. Thermal decomposition can lead to release of irritating gases and vapors.			
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
NFPA	Health Hazard 2	Flammability 2	Instability 2	Physical and Chemical Hazards OX
HMIS	Health Hazard 2	Flammability 2	Physical Hazard 3	Personal Protection X

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid inhalation of dust. Avoid contact with skin, eyes and clothing.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.
Methods for Containment	Stop leak if you can do it without risk
Methods for Cleaning Up	Wet the material with water to limit dust emission or explosion risk. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Keep contents moist. After cleaning, flush away traces with water.
Other Information	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) Keep combustibles (wood, paper, oil, etc) away from spilled material.

7. HANDLING AND STORAGE

Handling	Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe dust. Keep away from open flames, hot surfaces and sources of ignition. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Risk of explosion if heated under confinement. Do not allow to dry. Avoid dust formation. Fine dust dispersed in air may ignite. Avoid contact with skin, eyes and clothing.
Storage	Store in cool/well-ventilated place. Keep material in its original container away from any incompatible materials, direct sunlight or sources of heat. Keep at temperatures below 25° C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Benzoyl peroxide 94-36-0	TWA: 5 mg/m ³	TWA: 5 mg/m ³ (vacated) TWA: 5 mg/m ³	IDLH: 1500 mg/m ³ TWA: 5 mg/m ³

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
Engineering Measures	Showers Eyewash stations Ventilation systems
Personal Protective Equipment	
Eye/Face Protection	Goggles.
Skin and Body Protection	Wear as appropriate: Neoprene gloves. Synthetic rubber gloves.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White.	Odor	Faint.
Odor Threshold	No information available	Physical State	Solid
pH	No information available.		
Flash Point	Not applicable.	Autoignition Temperature	No information available.
Decomposition Temperature	No information available.	Boiling Point/Boiling Range	No information available
Melting Point/Range	No information available		
Flammability Limits in Air	No information available.		
Specific Gravity	1.23	Water Solubility	Insoluble in water.
Solubility	No information available.	Evaporation Rate	No information available
Vapor Pressure	No data available.	Vapor Density	No data available.

10. STABILITY AND REACTIVITY

Stability	Self accelerating decomposition temperature (SADT) is the lowest temperature at which self-accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the following temperature: 55°C. Contact with incompatible substances can cause decomposition at or below the SADT 55°C.
Incompatible Products	Avoid contact with rust, iron and copper. Acids. Alkalies. Heavy metals. Reducing agents.
Conditions to Avoid	Do not allow to dry. Dry residue is explosive Confinement must be avoided.
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO ₂). Biphenyls
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	= 30 mL/kg (Rat)		
Benzoyl peroxide	= 6400 mg/kg (Rat)		

Chronic Toxicity

Chronic Toxicity Repeated contact may cause allergic reactions in very susceptible persons.

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

Chemical Name	ACGIH	IARC	NTP	OSHA
Benzoyl peroxide		Group 3		

IARC: (International Agency for Research on Cancer)
Group 3: Not Classifiable as to its Carcinogenicity to Humans

Target Organ Effects Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Benzoyl peroxide	Toxic Ignitable Reactive

14. TRANSPORT INFORMATION

DOT

UN-Number	UN3106
Proper Shipping name	Organic peroxide type D, solid
Hazard Class	5.2
Subsidiary Class	None
Packing Group	II
Description	UN3106,Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2,PG II,Marine Pollutant
Emergency Response Guide Number	145

TDG

UN-Number	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
Packing Group	II
Description	UN3106,ORGANIC PEROXIDE TYPE D, SOLID(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2,PG II,Marine Pollutant

MEX

UN-Number	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
Description	UN3106 Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2

ICAO

UN-Number	UN3106
Proper shipping name	Organic peroxide type D, solid
Hazard Class	5.2
Description	UN3106,Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2

IATA

UN-Number	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
ERG Code	5L
Description	UN3106,Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2

IMDG/IMO

UN-Number	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
EmS No.	F-J, S-R
Marine Pollutant	Product is a marine pollutant according to the criteria set by IMDG/IMO
Description	UN3106, Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2,Marine Pollutant

RID

UN-Number	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
Classification Code	P1

Description	UN3106 Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2
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ADR

UN-Number	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
Classification Code	P1
Description	UN3106 Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2,

ADN

UN-No	UN3106
Proper Shipping Name	Organic peroxide type D, solid
Hazard Class	5.2
Classification Code	P1
Special Provisions	122, 274
Description	UN3106 Organic peroxide type D, solid(1,2-Benzenedicarboxylic acid, dicyclohexyl ester, Benzoyl peroxide),5.2
Hazard Labels	5.2
Limited Quantity	LQ11
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

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 %	SARA 313 - Threshold Values %
Benzoyl peroxide	94-36-0	51	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
1,2-Benzenedicarboxylic acid, dicyclohexyl ester			X		
Benzoyl peroxide	X	X	X		X

International Regulations**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

C Oxidizing materials

D2B Toxic materials

F Dangerously reactive material

**16. OTHER INFORMATION**

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 23-Nov-2011

Revision Date

Revision Note Initial Release.

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication and it does not purport to be all inclusive and shall be used only as a guide. We urge each customer or recipient of this MSDS to study it carefully to become aware of and understand the potential hazards associated with the product. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Any use of the product not in conformance with this MSDS or in combination with any other product or process is the responsibility of the user. Customary precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Remove all soiled and contaminated clothing immediately.

End of Safety Data Sheet