

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

PRODUCT NAME: P-11 Type II

CHEMICAL NAME: Unsaturated Polyester Resin Blend

MANUFACTURER: CASS POLYMERS OF MICHIGAN, INC.
815 WEST SHEPHERD STREET
CHARLOTTE MI 48813 USA

INFORMATION PHONE: (248) 588-2270

EMERGENCY PHONE: (703) 527-3887(Call Collect)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Materials Information System (United States)

Health	2*
Flammability	3
Physical Hazard	1

Hazard Codes: *=Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

Material Composition

Component	CAS.NO	EINECS/ELINCS No.	Percent
Unsaturated Polyester Resin	28472-89-1	Polymer	15% - 20%
Unsaturated Polyester Resin	Proprietary	Polymer	5% - 10%
Styrene Monomer *	100-42-5	202-851-5	10% - 12%
Sodium Borosilicate Glass	65997-17-3	Not Available	1% - 10%

*Chronic Health Risk-See section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

† SARA 313 listed material. See Section 15-Regulatory Information.

3. HAZARDS IDENTIFICATION

EC Classification: Xn-Harmful; F-Flammable

EC Risk Phrase(s): R10: Flammable
R20: Harmful by inhalation
R36/37/38: Irritating to eyes, respiratory system and skin

(See section 15-REGULATORY INFORMATION for complete text of risk phrases).

Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

Emergency Overview:

COMBUSTIBLE LIQUID
Harmful if swallowed - can enter lungs and cause damage
May undergo hazardous polymerization.

Route(s) of Entry:

Inhalation, skin and eye contact.

Acute Exposure:

INHALATION: Harmful if inhaled. Effects from exposure may include headaches, fatigue, nausea, sensation of drunkenness, central nervous system depression and pulmonary edema.

Skin:

Harmful if absorbed through skin. Contact causes skin irritation. Prolonged or repeated skin contact can result in defatting and drying of the skin.

Eyes:

Harmful to eyes. Direct contact with this material causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

Ingestion:

Harmful if swallowed. Single dose oral toxicity is low. Swallowing small amounts during normal handling is not

likely to cause harmful effects: swallowing large amounts may be harmful. Effects from exposure through ingestion may include gastrointestinal disturbances, pain and discomfort. Effects of exposure by ingestion may also include those indicated by the inhalation route. Material is harmful or fatal if liquid is aspirated into the lungs.

Chronic Exposure:

Prolonged or repeated exposure may cause damage to the central nervous system and may result in permanent brain damage. Symptoms include: loss of memory, loss of judgement, loss of coordination, effects on hearing and respiratory tract damage. Prolonged or repeated exposure may cause liver and kidney damage.

Carcinogenicity:

This material contains Styrene which is listed by the International Agency for Research (IARC) on Cancer as a group 2B cancer causing agent (possibly carcinogenic to humans).

4. FIRST AID MEASURES**Eye Contact:**

Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention.

Skin Contact:

Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Ingestion:

DO NOT INDUCE VOMITING. ASPIRATION HAZARD: this material may enter the lungs during vomiting. Immediately give the victim one or two glasses of water or milk to drink. Never give anything by mouth to an unconscious person. GET IMMEDIATE MEDICAL ATTENTION.

Inhalation:

Remove victim to fresh air. Keep warm and quiet. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. GET IMMEDIATE MEDICAL ATTENTION.

5. FIRE FIGHTING PRECAUTIONS**General Hazards:**

FLAMMABLE LIQUID: This material's flash point is 89°F (32°C).

Fire Fighting Extinguishing Media:

Use carbon dioxide, foam, dry chemical or water fog to extinguish fire.

Fire Fighting Equipment:

Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use.

Fire Fighting Instructions:

Evacuate all persons from the fire area to an explosion-protected location. Move non-burning material, as feasible, to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazard while extinguishing the blaze. Containers of this material may build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers. DO NOT extinguish a fire resulting from a large flow of this flammable liquid until the flow of liquid is effectively shut off. This precaution will help prevent the accumulation of an explosive vapor-air mixture after the initial fire is extinguished. Use water spray to disperse vapors if a spill or leak has not ignited. See Section 13 for disposal considerations.

Fire and Explosion Hazards:

FLAMMABLE LIQUID. Vapors can form an explosive mixture with air. Vapor can travel to a source of ignition (spark or flame) and flash back. This material may polymerize (react) when its container is exposed to heat (as during a fire). This polymerization increases pressure inside a closed container and may result in the violent rupture of the container.

Hazardous Combustion Products:

Combustion may produce carbon monoxide, carbon dioxide and irritating or toxic vapors and gases.

6. ACCIDENTAL RELEASE MEASURES**For Small Spills:**

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Use non-sparking (non-metallic) tools to clean up spill. Remove all sources of ignition. NO SMOKING.

For Large Spills (drums or larger):

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). NO SMOKING. Persons not wearing protective equipment (see Section 8) should be excluded from the area of the spill until clean-up has been completed. Stop spill at source. Prevent spilled material from contaminating soil or entering drains, sewers, streams or other bodies of water. Prevent spilled material from spreading. Immediately notify authorities of any reportable spill as may be required pursuant to regulations. See Section 15 for applicable CERCLA reportable quantities. Scrape or pump spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other waste materials to waste containers for disposal.

7. HANDLING AND STORAGE

Handling Information:

Avoid inhalation and contact with eyes, skin, and clothing. Wash hands thoroughly after handling and before eating or drinking. Remove and wash contaminated clothing before reuse. Use with adequate ventilation. Ground and bond containers when transferring the material to prevent static electricity sparks which could ignite the vapor. Use spark-proof tools and explosion-proof equipment. Consult your supplier of promoters and catalysts for additional instructions on proper mixing and usage. Empty containers may retain product residue (liquid and/or vapor). Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition as the container may explode and may cause injury or death. Empty drums should be completely drained and properly bunged. Empty drums should be promptly returned to a drum reconditioner or properly disposed.

Storage Information:

Keep away from ignition sources: flames, pilot lights, electrical sparks, and sparking tools. NO SMOKING. Do not store in direct sunlight. Store separate from oxidizing materials, peroxides, and metal salts. Keep container closed when not in use. To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 75°F (25°C). Copper or copper containing alloys should be avoided as containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hazardous Component Control Parameters –

Component	CAS. No.	EINECS	Percent	Exposure Limits	Source
Styrene	100-42-5	202-851-5	10% - 12%	100 ppm PEL	OSHA
				20ppm TWA	ACGIH
				40 ppm STEL	ACGIH

Engineering Controls:

Local ventilation may be required during certain operations to maintain concentrations below recommended exposure limits. Use explosion-proof ventilation equipment.

Eye Protection:

Wear 1) safety glasses with side shields and a faceshield or 2) goggles and a faceshield. Facilities storing or utilizing this material should be equipped with an eyewash station and safety shower.

Skin Protection:

Wear chemical resistant gloves such as polyvinyl alcohol or Viton®. If splashing is likely, wear impervious clothing and boots to prevent repeated or prolonged skin contact. Consult your supplier of personal protective equipment for additional instructions on proper usage. The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection:

A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be necessary under certain circumstances where airborne concentrations are expected to exceed exposure limits. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Protection provided by air purifying respirators is limited. Use a positive pressure air-supplied respirator if 1) there is any potential for an uncontrolled release, 2) exposure levels are not known, or 3) during other circumstances where air purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Thixotropic Paste
Color :	Brown, Black, Green or White
Odor :	Pungent Odor
Specific gravity :	1.53 – 1.56
Vapor pressure :	6.12 (mm Hg) Styrene
Boiling point/range :	Not Determined
Freezing point/range :	Not Determined
Water solubility :	Components are Not Readily Soluble in Water
pH :	Not Determined
Flash point :	89° F (32 ° C)
Auto-ignition temp. :	914° F (490° C)
Flammability-LFL :	1.1 % in air Styrene
Flammability-UFL :	7.0 % in air Styrene
Volatile Organic Compounds:	12% by mass (186 g/liter)

10. STABILITY AND REACTIVITY

Stability:

Stable at normal temperatures and storage conditions.

Incompatibility:

Avoid contact with strong acids, oxidizing agents (peroxides), metal salts and polymerization catalysts.

Hazardous Decomposition Products:

Thermal decomposition may produce various hydrocarbons and irritating, acrid vapors.

Hazardous Polymerization:

Product will undergo hazardous polymerization at temperatures above 150 F (65 C). Hazardous polymerization will occur if contaminated with peroxides, metal salts and polymerization catalysts.

11. TOXICOLOGICAL INFORMATION

Ingredient Name	CAS No.	%	Test	Result	Route	Species
m-Tolyldiethanolamine	91-99-6	0.5% - 1%	LD50	0.8 - 3.1 g/kg	Oral	Rat
			LD50	24 g/m3, 4 hrs.	Inhalation	Rat
Styrene	100-42-5	10% - 12%	LD50	5g/kg	Oral	Rat
			LD50	5g/kg	Dermal	Rabbit

-No Further Information Available-

Acute Eye Toxicity:

Studies indicate that exposures to concentrations of styrene above 200 ppm cause irritation of the eyes. Styrene causes transient moderate eye irritation without corneal involvement.

Acute Inhalation Toxicity:

Studies indicate that exposures to concentrations of styrene above 200 ppm cause irritation of the upper respiratory tract.

Subchronic:

Overexposure to styrene has been suggested as a cause of the following effects in laboratory animals and may aggravate preexisting disorders of the following organs in humans; mild, reversible kidney effects, effects on hearing, respiratory tract damage, testis damage and liver damage.

Chronic/Carcinogenicity:

The International Agency for Research on Cancer (IARC) has classified styrene in Group 2B, possibly carcinogenic to humans. IARC concluded that evidence of carcinogenicity from human health studies, was inadequate and based the classification on animal and other relevant data. IARC considered the combined results of these cancer studies to provide "limited evidence" of carcinogenicity. The relevance of these findings is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic.

Teratology:

Styrene did not cause birth defects in orally-dosed rats, mice, rabbits and hamsters exposed by inhalation. Styrene given by inhalation for six hours a day during organ development has been shown to be toxic to fetal mice at 250 ppm and to fetal hamsters at 1000 ppm. Information from human experience and the results of animal studies suggest no significant risk of birth defects or reproductive toxicity of styrene to humans.

Mutagenicity:

Styrene has given mixed positive and negative results in a number of mutagenicity tests. It was not mutagenic in the Ames test without metabolic activation but gave negative and positive mutagenic results with metabolic activation. It has also given negative mutagenic results in the Chinese Hamster Ovary Test, and the Forward Gene Mutation Test and positive results in the Sister Chromatid Exchange and the Chromosomal Aberration assay.

12. ECOLOGICAL INFORMATION

Persistence/degradability:

This material contains components that show little or no evidence of biodegradability. Great Caution should be taken to prevent release to the environment. See Section 13 for further information.

Ecotoxicity Data:

Chemical Name	CAS No.	%	Test	Concentration	Result	Species
Styrene	100-42-5	10% - 12%	LC50	23 mg/L	48 hrs.	Daphnia magna

-No further data available-

Individual components of this mixture have been independently tested by the raw material suppliers and any known results have been presented above. The results for the individual components may not be representative of the ecological toxicity of this finished product. This finished product has not been tested to determine individual toxicological/ecological limits. Great Caution should be taken to prevent release to the environment. See Section 13 for further information.

13. DISPOSAL CONSIDERATIONS

Disposal

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even small quantities, should never be poured down drains, sewers or water courses. Waste must be disposed of in accordance with federal, state and local environmental control regulations

Contaminated packaging

Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Hazard warning labels should be removed from the container walls.

European waste catalogue No:

07 02 99 wastes not otherwise specified

14. TRANSPORT INFORMATION

Land/Air/Sea/Rail:

Proper Shipping Name: Resin Solution
 UN Number: UN-1866
 Hazard Class: 3
 Packing Group: III

15. REGULATORY INFORMATION

Occupational Safety and Health Act (OSHA): This material is classified as a hazardous chemical under the criteria of the US Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III: Section 304 - CERCLA: Styrene (CAS# 100-42-5): Reportable Quantity = 1,000 lb.

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS): This material is classified as an IMMEDIATE HEALTH HAZARD, DELAYED HEALTH HAZARD, FLAMMABILITY HAZARD, and REACTIVITY HAZARD under the US Superfund Amendment and Reauthorization Act (Section 311/312).

SARA Title III: Section 313 Toxic Chemical List (TCL): Styrene (100-42-5)

TSCA Section 8(b) - Inventory Status: All components of this material are listed on the US Toxic Substances Control Act (TSCA) inventory.

TSCA Section 12(b) - Export Notification: This material does not contain any components that are subject to the US Toxic Substances Control Act (TSCA) Section 12(b) Export Notification requirements.

Canadian Inventory Status: All components of this material are listed on the Canadian Domestic Substances List (DSL).

Canadian WHMIS: This material is classified by the Canadian Workplace Hazardous Material Information System as: B2 (flammable liquid) D2A (materials causing other toxic effects, very toxic material) D2B (materials causing other toxic effects, toxic material) F (dangerously reactive material)



European Inventory Status (EINECS): This product contains one or more chemicals currently not on the European Inventory of Existing Commercial Chemical Substances (EINECS) or Pre-market notified.

California Proposition 65: WARNING: This product contains a chemical(s) known to the State of California to cause cancer. Styrene Oxide

Additional Canadian Regulatory Information: The following chemicals are listed on the WHMIS Ingredient Disclosure List: Styrene Monomer (CAS# 100-42-5)

Classification according to EC-regulations:

The product has been classified and labelled in accordance with EC Directives.

Code letter and hazard designation of product:

Xn

F



Hazard Symbol: Xn-Harmful; F-Flammable

Hazard-determining components of labeling: Styrene

Risk phrases: R10: Flammable
 R20: Harmful by inhalation
 R36/37/38: Irritating to eyes, respiratory system and skin

Safety phrases: S3/7/9: Keep containers tightly closed in a cool, well-ventilated place
 S23: Do not breathe vapor
 S36/37: Wear suitable protective clothing and gloves
 S43: In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water
 S60: This material and its container must be disposed of as hazardous waste

CHIP 3

CHIP3 Regulations have been applied and meets all requirements.

National regulations**Technical instructions on air pollution control (TA-Luft):**

Class content in %

II, 15% - 20%

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.**Other regulations, limitations and prohibitive regulations:**

The raw materials used to produce this product are listed on the EINECS inventory.

16. OTHER INFORMATION

Definitions:

ACGIH: American Conference of Government Industrial Hygienists

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

TLV: Threshold Limit Value

TWA: Time-Weighted Average

LD50: Lethal Dose (50%)-The minimum dose required for lethal effects in 50% of a given population of test specimens.

LC50: Lethal Concentration (50%)- The minimum concentration required for lethal effects in 50% of a given population of test specimens

NIOSH: National Institute for Occupational Safety and Health

WHMIS: Workplace Hazardous Material Information System

DSL: Domestic Substances List

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. 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.

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

PRODUCT NAME: Peroxide Cream Hardener

CHEMICAL NAME: Organic Peroxide, 35% in inert fillers

MANUFACTURER: QUALITY HARDENER
PO BOX 2385
RIVERVIEW MI 48192

INFORMATION PHONE: (248) 588-2270

EMERGENCY PHONE: (703) 527-3887(Call Collect)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Materials Information System (United States)

Health	2
Flammability	2
Physical Hazard	2

Hazard Codes: *=Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

Material Composition

Component	CAS.NO	EINECS/ELINCS No.	Percent
Benzoyl Peroxide	94-36-0	Not Available	34-35%
PLASTICIZER (Proprietary, Ester based, non-Pthalate)	800951-5002-p	Not Available	27-30%
CALCIUM CARBONATE	471-34-1	207-439-9	15-19%
WATER	7732-18-5	Not Available	10-13%
SURFACTANT (Proprietary, Ethoxylated Alkyl Phenol)	800951-5003-P	Not Available	1-4%
Fumed Silica	7631-86-9	Not Available	0-4%

Hazardous Materials are listed if present in concentrations of 1.0% or higher. Materials posing a possible Chronic Health Risk are listed at concentrations of 0.1% or higher. Materials listed in section 2 are not necessarily hazardous. See section 8-Exposure Controls/Personal Protection, and section 11-Toxicological Information for complete hazard/exposure limit information

3. HAZARDS IDENTIFICATION

****Emergency Overview****

Emergency Overview: Danger! Strong oxidizer. Contact with other material may cause fire. Extremely explosive-sensitive to shock, heat and friction. Extremely flammable. Unstable at elevated temperatures. Harmful if swallowed or inhaled. Allergen. exposure may produce allergic response. Causes irritation to skin, eyes and respiratory tract.

EC Classification(s): Xi-Irritant; N-Harmful to the Environment

EC Risk Phrases: R21/22: Harmful in contact with skin and if swallowed

R43: May cause sensitization with skin contact

R36/38: Irritating to eyes and skin

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

(See Section 15-REGULATORY INFORMATION for complete text of risk phrases.)

Hazard Statements

Potential Health Effects:

Eyes; Vapor or mist causes eye irritation. Splashes cause severe irritation with stinging pain and tears.

Skin; Causes irritation with redness and pain, and skin sensitization in some individuals. Stinging or burning sensation may occur for a brief time after application to skin.

Ingestion; Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Inhalation; Decomposition products are toxic and inhalation of the products can produce life threatening health effects.

4. FIRST AID MEASURES

First Aid: Eyes; Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

First Aid: Skin; Immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse.

First Aid: Ingestion; Do not induce vomiting. get medical attention immediately.

First Aid: Inhalation; Remove to fresh air. Get medical for any breathing difficulty.

5. FIRE FIGHTING PRECAUTIONS

Extinguishing Media:

Dry Chemical or carbon dioxide. Water to cool containers. Water or foam may cause frothing

Fire Fighting Equipment/Instructions: Wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Containment Procedures: Contain discharged material

Clean-Up Procedures: Remove all sources of ignition, ventilate area of leak or spill. Spill can be mixed with water wetted vermiculite, swept up and then placed into appropriate plastic containers for immediate disposal.

Evacuation Procedures: NA

Special Procedures: NA

7. HANDLING AND STORAGE

Handling Procedures: Avoid strong acids, strong alkalis, polymerization accelerators (Cobalt Napthanates, DMA, DEA.

Storage Procedures: Stores best below 80°F, shelf life 1 year.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hazardous Component Control Parameters –

Component	CAS. No.	EINECS	Percent	Exposure Limits	Source
Benzoyl Peroxide	94-36-0	Not Available	35%	5mg/m ³ PEL 5mg/m ³ TLV	OSHA ACGIH

-No Further Data Available-

EYE PROTECTION

Chemical safety glasses. A full-face shield and vapor respirator is recommended for operations involving spraying or other operations placing this material under pressurized conditions.

HAND PROTECTION

Neoprene rubber gloves. Impermeable gloves. Nitrile rubber gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

RESPIRATORY PROTECTION

Not required under normal conditions and in a well-ventilated workplace. At elevated temperatures, a cartridge mask National Institute for Occupational Safety and Health (NIOSH) approved for organic vapors may be appropriate

PROTECTIVE CLOTHING

Long sleeved clothing.

ENGINEERING CONTROLS

No specific controls needed.

WORK AND HYGIENIC PRACTICES

Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking or using the toilet.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Thixotropic Paste
Color:	White, Red, Black
Odor:	Ester-type odor
Specific gravity :	1.30 – 1.33
Vapor pressure:	Not Determined
Boiling point/range :	(Benzoyl Peroxide) Decomposes explosively above 55°C
Freezing point/range :	Not Determined
Water solubility :	Not Determined
pH :	Not Determined
Flash point :	Not Determined
Flammability-LFL :	Not Determined

Flammability-UFL : Not Determined
 VOC Content: 0 g/L (0%)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Chemical Stability: Conditions to Avoid: excessive heat; contaminates; ignition sources

Incompatibility: Strong acids, accelerators

Hazardous Decomposition: Flammable

Hazardous Polymerization: Will occur

11. TOXICOLOGICAL INFORMATION

Acute toxicity

This finished product has not been tested to determine individual toxicological/ecological limits. Individual components of this mixture have been independently tested by the raw material manufacturers and any known results have been presented below. The results for the individual components may not be representative of the toxicity of this finished product.

Ingredient Name	CAS No.	%	Test	Result	Route	Species
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-No Further Data Available-

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

SENSITIZATION

Respiratory: May cause allergic respiratory reaction.

Skin: May cause allergic skin reaction.

SIGNS AND SYMPTOMS OF EXPOSURE

Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

CHRONIC EXPOSURE - MUTAGEN

Result: Laboratory experiments have shown mutagenic effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity: 96 hr LC₅₀ guppy (semi-static): 2.0 mg/L, moderately toxic.

Environmental Fate: Almost 60% biodegradation was reached after 28 days in the closed bottle ready biodegradability test.

13. DISPOSAL CONSIDERATIONS

Disposal

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even small quantities, should never be poured down drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured with its resin component at the proper mix ratio, may be safely landfilled.

Contaminated packaging

Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Hazard warning labels should be removed from the container only after it has been properly emptied.

14. TRANSPORT INFORMATION

Land

Proper Shipping Name: ORM-D (Not Regulated)

Air/Sea/Rail

Proper Shipping Name: Organic Peroxide Type E, Solid (Dibenzoyl Peroxide Paste)

UN Number: UN-3108

Hazard Class: 5.2

Packing Group: II

Special Notation: The following must be typed on Dangerous Goods paperwork: THE PACKAGE CONTAINING UN3108 MUST BE SHADED FROM DIRECT SUNLIGHT. STORED AWAY FROM ALL SOURCES OF HEAT, IN A WELL VENTILATED AREA.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

TOXIC SUBSTANCES CONTROL ACT (TSCA)-

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

TOXIC SUBSTANCE CONTROL ACT (TSCA) 12(b) COMPONENT(S)

None

OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es)

Irritant. Sensitizer.

EPA SARA Title III Section 312 (40CFR370) hazard class

Immediate Health Hazard. Delayed Health Hazard.

EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "de minimis" level are:

Benzoyl Peroxide, 35% (CAS#94-36-0)

STATE REGULATIONS

PROPOSITION 65 SUBSTANCES (component(s) known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986")

None

CANADA

DSL

Included on Inventory.

WHMIS HAZARD CLASSIFICATION

Class C Division 2B

HAZARDOUS PRODUCTS ACT INFORMATION:

This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14):

NONE

WHMIS TRADE SECRET REGISTRY NUMBER(S)

NONE

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

None

WHMIS SYMBOLS



EUROPEAN ECONOMIC COMMUNITY (EEC)

EINECS/ELINCS MASTER INVENTORY

Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.

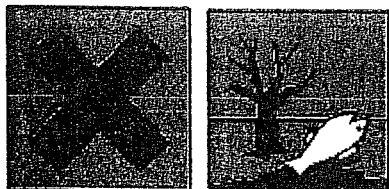
EINECS Status:

All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) in Compliance with Council Directive 67/548/EEC and its amendments. CHIP3 Regulations have been applied and meets all requirements.

Hazard symbol(s):

Xi

N



EU Labeling Classification: Xi-Irritant; N-Harmful to the Environment

Risk Phrases: R21/22: Harmful in contact with skin and if swallowed
R43: May cause sensitization with skin contact
R36/38: Irritating to eyes and skin
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Phrases: S24: Avoid contact with skin.
S28: After contact with skin, wash immediately with plenty of water and soap
S37/39: Wear suitable gloves and eye/face protection.
S61: Avoid release to the environment. Refer to special instructions/Safety data sheet.

16. OTHER INFORMATION

No Other Information

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. 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.
