





## MATERIALS SAFETY DATA SHEET

BUTANOX LPT-IN



## **IDENTIFICATION OF THE SUBSTANCE/MIXTURE**

**Product Information** Trade name

Substance/Mixture

**BUTANOX LPT-IN** 

Use of the

Specific use(s):

Curing agent

HAZARDS IDENTIFICATION II.

ppearance	Del. 7
Form	liquid
Colour	colourless
Odour	Faint.
GB 6944/12268	
UN number	UN 3105
Proper shipping name	ORGANIC PEROXIDE TYPE D, LIQUID
	(Methyl ethyl ketone peroxide)
Class	5.2FIBERGLASS + RESIN
Packing group	Not Assigned
Hazard Summary	Polula
General advice	Immediate medical attention is required.
GLASS + RESIN	Move out of dangerous area.
	Show this safety data sheet to the doctor in attendance.
Physical and chemical hazards	Heating may cause a fire.
Health hazards	
Inhalation	Inhalation of aerosols may cause irritation to mucous membranes.
	Thermal decomposition can lead to release of irritating gases and vapours.  Harmful if inhaled.
Skinass + Resin	Symptoms may be delayed. FIBERGLASS Causes severe skin burns.
Eyes	Causes serious eye damage.
Ingestion	Causes burns. May be harmful if swallowed.
Environmental hazards	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  Toxic to aquatic life.

## LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS HEADQUARTERS
CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711









### **GHS Classification**

Organic peroxides, Type D Acute toxicity, Category 5, Oral Acute toxicity, Category 4, Inhalation Skin corrosion/irritation, Category 1

Serious eye damage/eye irritation, Category 1

Acute aquatic toxicity, Category 2

### GHS label elements

Hazard pictograms

Signal word

Hazard statements



Precautionary statements







## LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708









Danger

H242 Heating may cause a fire. H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled. H401 Toxic to aquatic life.



P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220 Keep/Store away from clothing/ combustible materials.

P234 Keep only in original container.

P235 Keep cool.

P261 Avoid breathing mist, vapours or spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area. CLASS

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

## Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 + P310 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/doctor. P312 Call a POISON CENTER/doctor if you feel unwell. P363 Wash contaminated clothing before reuse.



## VISAYAS:

HEADQUARTERS

CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711









P370 + P378 In case of fire: Use water spray, alcoholresistant foam, dry chemical or carbon dioxide to extinguish.

### Storage:

P405 Store locked up. P410 Proect from sunlight. P420 Store away from other materials.

### Disposal:

P501 Dispose of contents/container in accordance with local regulation.





# Physical and chemical hazards Heating may cause a fire.

### Health hazards

Inhalation EGI

Skin

Eyes

Ingestion

Additional information

# Poly Klear

: Inhalation of aerosols may cause irritation to mucous membranes.

Thermal decomposition can lead to release of irritating gases and vapours.

Harmful if inhaled.

Symptoms may be delayed.
 Causes severe skin burns.

: Causes serious eye damage

: Causes burns.

May be harmful if swallowed.

No further data available.



## **Test Results**

Acute oral toxicity

Acute inhalation toxicity

Acute dermal toxicity

# Poly Klear

Acute toxicity estimate: 2,815 mg/kg
Method: Calculation method

Acute toxicity estimate : 4.26 mg/l Exposure time: 4 h
Test atmosphere: dust/mist Method: Calculation method

Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

# FIBERGLASS + RESIN

## **Environmental hazards**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. RGLASS + RESIN





## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS
CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:







INFORMATION/COMPOSITION OF INGREDIENTS

Hazardous substance ESIN



Chemical name	CAS-No.	Classification	Concentration [%]	
Methyl ethyl ketone peroxide;Reaction massofbutane-2,2-diyldihydroperoxide and di-sec-butylhexaoxidane	1338-23-4	Acute 10x. 4, 11002	>= 30 - < 37	
Poly Klear,		Acute Tox. 4; H332 Acute Tox. 5; H313 Skin Corr./Irrit. 1; H314	Poly Kili	
BERGLASS + RESIN		Eye Dam./Irrit. 1; H318 Aquatic Acute 2; H401	FIBERGLASS +	
Methyl ethyl ketone	78-93-3	Flam. Liq. 2; H225 Acute Tox. 5; H303	>= 1 - < 10	
	FIBE	Eye Dam./Irrit. 2A; H319		
Polu Klear		STOT SE 3; H336	Polu Kil	

Remarks:

Methyl ethyl ketone peroxide 30-37% LASS + RESIN solution in Diisononyl phthalate

For the full text of the H-Statements mentioned in this Section, see Section 16.

FIRST AID MEASURES

General advice

: Immediate medical attention is required.

Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Inhalation

: If breathed in, move person into fresh air. Consult a physician after significant exposure.

Skin contact

: Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with

difficulty.

Eye contact : Rinse with plenty of water.

Get medical attention immediately. Continue to rinse during

transport.

Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.

LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

VISAYAS:

HEADQUARTERS

Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711





Notes to physician Symptoms



Treatment



Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.

Do not induce vomiting! May cause chemical burns in mouth and throat.

The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

: May be harmful if swallowed. Causes serious eye damage. Harmful if inhaled. Causes severe burns.

: Treat symptomatically.



## V. FIREFIGHTING MEASURES

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards during firefighting / Specific hazards arising from the chemical

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

: High volume water jet + RESIN

: CAUTION: reignition may occur. Supports combustion.

Do not use a solid water stream as it may scatter and spread

Water spray may be ineffective unless used by experienced firefighters.

Hazardous decomposition products formed under fire conditions. GLASS + RESIN

: Fire will produce smoke containing hazardous combustion products (see section 10).







## LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708



HEADQUARTERS HEADQUARTERS
CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711











Special protective equipment for firefighters

Further information

: In the event of fire, wear self-contained breathing apparatus.

: Use water spray to cool unopened containers. RGLASS + Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

## ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures FIBERGLASS + RESI

Personal precautions

: Use personal protective equipment. Wear respiratory protection. Ensure adequate ventilation. Remove all sources of ignition.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Emergency measures on B E Raccidental release S I N

: Evacuate personnel to safe areas.

Only qualified personnel equipped with suitable protective s s equipment may intervene.

Prevent unauthorised persons entering the zone.

Environmental precautions

: Prevent product from entering drains.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods for cleaning up / Methods for containment

: Keep wetted with water.

Soak up with inert absorbent material and dispose of as

hazardous waste.

Confinement must be avoided.

Never return spills in original containers for re-use.

Reference to other sections

: For disposal considerations see section 13.

For personal protection see section 8.







## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS CEBU

ZF SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711



Poly Klear FIBERGLASS + RESIN

Poly Klear,



## Handling

B Advice on safe handling

: For personal protection see section 8.

Avoid formation of aerosol.

Do not breathe vapours or spray mist.

Smoking, eating and drinking should be prohibited in the

application area.

Provide sufficient air exchange and/or exhaust in work rooms.

Open drum carefully as content may be under pressure.

Dispose of rinse water in accordance with local and national

regulations.

 Advice on protection against fire and explosion : Use explosion protected equipment.

Keep away from sources of ignition - No smoking.

No sparking tools should be used.

Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal

Do not cut or weld on or near this container even when empty.

Keep away from combustible material.

Temperature class

: It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded. A S S

### Storage

Requirements for storage areas and containers : No smoking.

Keep in a well-ventilated place.

Electrical installations / working materials must comply with

the technological safety standards.

Keep only in original container.

Store away from other materials.

Maximum storage temperature: : 25 °C

Other data

No decomposition if stored and applied ss directed.

## VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

## **EXPOSURE CONTROLS/PERSONAL PROTECTION**

	Components	CAS-No.	Value F I B E	Control R parameters	Update ESIN	Basis	Form of exposure	
Po	Methyl ethyl ketone	78-93-3	PC-TWA	300 mg/m3	2007-04-27	GBZ 2.1- 2007	TKE	j
IBER	GLASS + RE	SIN	PC- STEL	600 mg/m3	2007-04-27	GBZ 2.1- 2007 B E R (	BLASS +	R E

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS

CEBU

2F SEA Olympus Building, AC Cortes Ave.

Trunkline #: (032) 421-7777

Tel.#: (032) 346-7137; 421-7800 to 06

421-7817 to 18; 421-7823

Fax #: (032) 421-7789; 346-1817

## MINDANAO:



Poly Klea



www.olympus.com.ph

## Components with workplace control parameters

ACGIH: American Conference of Governmental Industrial Hygienists

BEI: Biological Exposure Index

MAC: Maximum Allowable Concentration

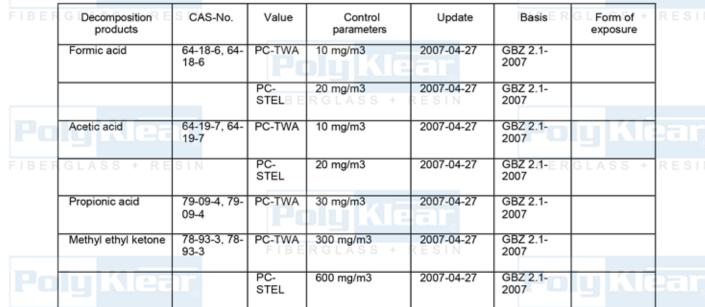
NIOSH: National Institute for Occupational Safety and Health

OEL: Occupational exposure limit. OEL:

STEL: Short term exposure limit B E R G L A S S + R E S I N

TWA: Time Weighted Average

## Occupational exposure limits of decomposition products











## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708



ZF SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823 Fax #: (032) 421-7789; 346-1817





## MINDANAO:











## Appropriate engineering controls

Explosion proof ventilation recommended.

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

## Personal protective equipment

Respiratory protection

In the case of vapour or aerosol formation use a respirator

with an approved filter.

Filter A

Hand protection

Neoprene

Nitrile rubber

Eye/face protection

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection

Protective suit

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

When using do not eat or drink. When

using do not smoke.

Wash hands before breaks and at the end of workday.

General advice

Prevent product from entering drains.

If the product contaminates rivers and lakes or drains

inform respective authorities.







## LUZON:

REGIONAL OFFICE Takdurd 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS

CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711







## PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form

Colour

Odour

Odour Threshold

Safety data

pΗ

Melting point

Boiling point/boiling range

Flash point + RESIN

Evaporation rate

Flammability (solid, gas)

Flammability (liquids)

Lower explosion limit

Upper explosion limit

Vapour pressure

Relative Vapor Density

Relative Density

**Bulk Density** 

Water Solubility

liquid colourless LASS + RESIN

Faint.

No data available

not determined

No data available

Decomposes below the boiling point.

Above the SADT value

No data available

Not applicable

Decomposition products may be flammable.

No data available

No data available

not determined

: no data available

: 1.012 at 20 °C

: not applicable

: at 20 °C immiscible







## LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

VISAYAS:

HEADQUARTERS

HEADQUARTERS
CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817



## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711









Solubility in other solvents

Partition coefficient: noctanol/water

Auto-ignition temperature

Decomposition temperature

: Miscible with:, Phthalates

No data available

Test method not applicable

SADT - (Self accelerating decomposition temperature) 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 SADT. Contact with incompatible substances can cause decomposition below the SADT.

Self-Accelerating decomposition temperature (SADT)

Viscosity, dynamic

Viscosity, kinematic

Explosive properties

Oxidizing properties

RActive Oxygen Content

Organic peroxides

: 60 °C

: 32.4 mPa.s at 20 °C

32.02 mm2/s at 20 °C

: Not explosive

Not classified as oxidising.

8.4 - 8.5 %

30 - 37 %

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

## STABILITY AND REACTIVITY

Materials to avoid ESIN

: Contact with the following incompatible materials will result in San Res hazardous decomposition:

Acids and bases

Iron

Copper

Reducing agents

Heavy metals ASS

Rust

 Confinement must be avoided. Heat, flames and sparks.

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

Conditions to avoid

## VISAYAS:

HEADQUARTERS

ZF SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823 Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711





Hazardous decomposition products

Thermal decomposition

Reactivity

(SADT)

Chemical stability

Self-Accelerating

Hazardous reactions

decomposition temperature

Carbon oxides Formic acid Acetic acid Propionic acid

processing.

equipment.

Methyl ethyl ketone

contact the supplier.

: SADT - (Self accelerating decomposition temperature) 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 SADT. Contact with incompatible substances can cause decomposition below the SADT.

Do not mix with peroxide accelerators, unless under controlled

Use only stainless steel 316, PP, polyethylene or glass -lined

For queries regarding the suitability of other materials please

Stable under normal conditions.

Stable under recommended storage conditions.

No dangerous reaction known under conditions of normal use.

TOXICOLOGICAL INFORMATION

Hazard Summary Acute toxicity

Skin corrosion/irritation

Serious eye damage/eye irritation

Respiratory or skin sensitisation

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

May be harmful if swallowed. Harmful if inhaled.

Causes severe burns.

Causes serious eye damage.

Respiratory sensitisation: Not classified based on available information.

Skin sensitisation: Not classified based on available information.

## LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

VISAYAS:

HEADQUARTERS

HEADQUARTERS
CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711

Polu Klea



Not classified based on available information.

Not classified based on available information.

Not classified based on available information.

Polu Klea

FIBERGLASS +

Potential Health Effects

Aspiration hazard

Skin

Eyes

Ingestion

Condition

Test result Acute oral toxicity

STOT - repeated exposure

Inhalation

Inhalation of aerosols may cause irritation to mucous membranes.

Thermal decomposition can lead to release of irritating gases and vapours.

Harmful if inhaled.

: Symptoms may be delayed. Causes severe skin burns.

: Causes serious eye damage.

Causes burns. May be harmful if swallowed.

None known.

: The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms

are known.

Toxicology Assessment Further information

Symptoms of Overexposure

Aggravated Medical

No further data available.

Acute toxicity estimate: 2,815 mg/kg Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 4.26 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Component: Methyl ethyl ketone peroxide; Reaction mass of butane -2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

Acute oral toxicity

Acute dermal toxicity

: LD50: 1,017 mg/kg Species: Rat

: LC50 (Rat): 1.5 mg/l Acute inhalation toxicity

Exposure time: 4 h Test atmosphere: dust/mist

: LD50: 4,000 mg/kg Species: Rat

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

Acute dermal toxicity



HEADQUARTERS ZF SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817



## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711



www.olympus.com.ph Skin irritation

Eye irritation

Germ cell mutagenicity Genotoxicity in vitro

Genotoxicity in vivo

No data available Carcinogenicity

Reproductive toxicity/Fertility Species: Rat, male and female Application Route: Oral

Dose: 0 25, 50, 75 milligram per kilogram

Result: Risk of serious damage to eyes.

insufficient for classification.

General Toxicity - Parent: No observed adverse effect level:

50 mg/kg bw/day

: Result: Causes burns.

Ames test Result: negative

General Toxicity F1: No observed adverse effect level F1: 50

mg/kg bw/day

Fertility: No observed adverse effect level Parent: 75 mg/kg

Method: OECD Test Guideline 421

GLP: yes

: The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Aspiration toxicity No aspiration toxicity classification

Component: Methyl ethyl ketone

Target Organ Systemic

Toxicant - Repeated

exposure

Acute oral toxicity LD50: 2,737 mg/kg

Species: Rat

: LD50: 6,480 mg/kg Acute dermal toxicity

Species: Rabbit S S + RESIN

Skin irritation : Result: Repeated exposure may cause skin dryness or

> cracking. Moderately irritating.

Eye irritation : Result: Irritating to eyes.

Target Organ Systemic Exposure routes: Inhalation

Toxicant - Single exposure The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with narcotic effects.

Aspiration toxicity No aspiration toxicity classification

## LUZON:

REGIONAL OFFICE Tast Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708 VISAYAS:

HEADQUARTERS

ZF SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823 Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711



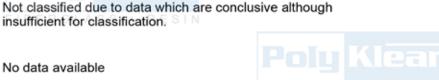












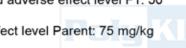
























































ECOLOGICAL INFORMATION | BERGLASS + RESIN XII.

## PRODUCT INFORMATION:

## Ecotoxicology Assessment

Additional ecological information

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

## Component: Methyl ethyl ketone peroxide; Reaction mass of butane -2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

## **Ecotoxicity effects**

Toxicity to fish

: LC50: 44.2 mg/l

Exposure time: 96 h

Species: Poecilia reticulata (guppy)

Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates

: 39 mg/l

Exposure time: 48 h

Species: Daphnia magna (Water flea)

Test Type: Immobilization

Toxicity to algae

: ErC50: 5.6 mg/l

Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (algae)

Test Type: Growth inhibition

Toxicity to bacteria

: EC10: 12 mg/l

Exposure time: 0.5 h

Species: activated sludge

Test Type: Respiration inhibition

Method: Domestic OECD Guideline 209

## Elimination information (persistence and degradability)

Bioaccumulation

: Bioconcentration factor (BCF): 10.3

Not expected considering the low log Pow value.

Biodegradability

: Result: Readily biodegradable. Method: Closed Bottle test

## Component: Methyl ethyl ketone

### Ecotoxicity effects

Toxicity to fish

: LC50: 3,220 mg/l

Exposure time: 96 h

Species: Lepomis macrochirus (Bluegill sunfish)

## Elimination information (persistence and degradability)

Biodegradability

: Result: Readily biodegradable.

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS

HEADQUARTERS
CEBU
2F SEA Olympus Building, AC Cortes Ave.
Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711





DISPOSAL CONSIDERATIONS BERGLASS + XIII.

Product

: The product should not be allowed to enter drains, water courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Hazardous waste

Dispose of contents/container in accordance with local

regulation, GLASS + RESIN

Contaminated packaging

Empty remaining contents. Dispose of as unused product.

Do not burn, or use a cutting torch on, the empty drum.

Due to the high risk of contamination recycling/recovery is not

recommended.

Follow all warnings even after the container is emptied.

#### XIV. TRANSPORT INFORMATION

IATA-DGR UN/ID No.

Proper shipping name

Class

Subsidiary risk

Packing group

Labels

Packing instruction (cargo

aircraft)

Packing instruction

(passenger aircraft)

B E REnvironmentally hazardous

: UN 3105

Organic peroxide type D, liquid (Methyl ethyl ketone peroxide)

5.2

HEAT

Not Assigned

5.2 (HEAT)

570

570

## IMDG-Code

Packing group

UN number

Class

Labels

Marine pollutant

Proper shipping name

UN 3105

ORGANIC PEROXIDE TYPE D, LIQUID

(Methyl ethyl ketone peroxide)

Not Assigned

EmS Code F-J, S-R

5.2

## Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

## National Regulations

## GB 6944/12268

UN number

Proper shipping name

UN 3105

ORGANIC PEROXIDE TYPE D, LIQUID

(Methyl ethyl ketone peroxide)

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS CEBU

ZF SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823 Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711



Polu Kle FIBERGLASS +

www.oly@lass.com.ph

Packing group

Labels

Environmentally hazardous

5.2 no

5.2



### XV. REGULATORY INFORMATION

### Notification status

DSL : YES. All components of this product are on the Canadian DSL AICS YES. On the inventory, or in compliance with the inventory

Not Assigned ASS +

NZIoC : YES. On the inventory, or in compliance with the inventory ENCS YES. On the inventory, or in compliance with the inventory

ISHL YES. On the inventory, or in compliance with the inventory KECI YES. On the inventory, or in compliance with the inventory

PICCS YES. On the inventory, or in compliance with the inventory **IECSC** YES. On the inventory, or in compliance with the inventory TCSI YES. On the inventory, or in compliance with the inventory

**TSCA** YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

For explanation of abbreviation see section 16.

## National regulatory information

## Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals Listed

Identification of Major Hazard Installations for Dangerous Chemicals (GB 18218) Category Threshold quantity

> Organic peroxides 50 t

## Further information

Law on the Prevention and Control of Occupational Diseases

#### XVI. OTHER INFORMATION

## Full text of H-Statements

H225 H241 H302 H303 RH3134 S S

H314

H318 H319 H332

H336 H401

Highly flammable liquid and vapour.

Heating may cause a fire or explosion.

Harmful if swallowed.

May be harmful if swallowed.

May be harmful in contact with skin.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Causes serious eve irritation. Harmful if inhaled.

May cause drowsiness or dizziness.

Toxic to aquatic life.

## Full text of other abbreviations

GBZ 2.1-2007 Occupational exposure limits for hazardous agents in the

workplace - Chemical hazardous agents.

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS CEBU

2F SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823 Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711



Poly Klear FIBERGLASS + RESIN

www.olympus.com.ph



Poly Klear

GBZ 2.1-2007 / PC-TWA : Permissible concentration - time weighted average

Permissible concentration - short term exposure limit = R G L A S S + R E S I N

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance 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 materials or in any process, unless specified in the text.



GBZ 2.1-2007 / PC-STEL

FIRERGIASS + RESIN



FIBERGLASS + RESIN



Poly Klear,
FIBERGLASS + RESIN





















## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519; 837-0710 837-0708



ZF SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777
Tel.#: (032) 346-7137; 421-7800 to 06
421-7817 to 18; 421-7823
Fax #: (032) 421-7789; 346-1817

## MINDANAO:







## TECHNICAL DATA SHEET

**BUTANOX LPT-IN** 



Butanox LPT-IN - Methyl ethyl ketone peroxide (MEKP) for curing unsaturated polyester resins in the presence of a cobalt accelerator at room and elevated temperatures. This product is very suitable for extra slow-gelling and marine applications, and specially designed for filament winding.

Specification				
Appearance		Clear colorless liquid		RES
Total Active Oxygen		8.4-8.6%		
SADT	Pe	60		-
Characteristics	FIBE	RGLASS + RESIN		-
Density, 20		1.017 g/cm <sup>3</sup>	Del- 74	
Viscosity, 20		32.4 mPa.s	FUIL	

## **APPLICATIONS**

Butanox LPT-IN is a methyl ethyl ketone peroxide (MEKP) for the curing of unsaturated polyester resins in the presence of a cobalt accelerator at room and elevated temperatures. Butanox LPT-IN gives in comparison with most other ketone peroxides a significantly longer gel time and is therefore particularly suitable for those applications where a long gel time or production time is required, for instance in the production of large parts and in filament winding.

## THERMAL STABILITY

Organic peroxides are thermally unstable substances, which may undergo selfaccelerating decomposition. The lowest temperature at which self-accelerating decomposition of a substance in the original packaging may occur is the Self- Accelerating Decomposition Temperature (SADT). The SADT is determined on the basis of the Heat Accumulation Storage Test.

SADT 60°C

## LUZON:

REGIONAL OFFICE TAGUIG 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS CEBU 2F SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823 Fax #: (032) 421-7789; 346-1817

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711

inquiry@olympus.com.ph

MINDANAO:











Due to the relatively unstable nature of organic peroxides a loss of quality can be detected over a period of time. To minimize the loss of quality, a maximum storage temperature (Ts max.) is recommended for each organic peroxide product.

25°C

Note: When stored under the recommended storage conditions, Butanox LPT-IN will remain within the specifications for a period of at least six months after delivery.

### PACKAGING AND TRANSPORT

The standard packaging is a 30 I HDPE can for 30 kg peroxide solution. In Asia Pacific the standard packaging is a 30 I HDPE can for 20 kg peroxide solution. Both packaging and transport meet the international regulations. Butanox LPT-IN is classified as Organic peroxide type D; liquid; Division 5. 2; UN 3105.

SAFETY AND HANDLING

Keep containers tightly closed. Store and handle Butanox LPT-IN in a dry wellventilated place away from sources of heat or ignition and direct sunlight. Never weigh out in the storage room. Avoid contact with reducing agents (e.g. amines), acids, alkalis and heavy metal compounds (e.g. accelerators, driers and metal soaps). Please refer to the Materials Safety Data Sheet (MSDS) for further information on the safe storage, use and handling of Butanox LPT-IN. FIBERGLASS + RESIN

## MAJOR DECOMPOSITION PRODUCTS

Carbon dioxide, water, acetic acid, formic acid, propionic acid, methyl ethyl ketone.





## LUZON:

REGIONAL OFFICE 1st Avenue, Sta. Maria Industrial Subd, Bagumbayan, Taguig City Tel.#: (02) 506-8519 ; 837-0710 837-0708

## VISAYAS:

HEADQUARTERS

2F SEA Olympus Building, AC Cortes Ave. Trunkline #: (032) 421-7777 Tel.#: (032) 346-7137; 421-7800 to 06 421-7817 to 18; 421-7823

Fax #: (032) 421-7789; 346-1817

## MINDANAO:

REGIONAL OFFICE DAVAO Unit A16 J.King Warehouse Complex Km.3 Maa Road, Davao City 8000 Telefax #: (082) 244-1206; 302-2711