

SPECIFICATION FOR BIRLOX-5

GRADE NAME: PERACETIC ACID 5%

FORMULA: CH₃-COOOH

ANALYSIS		LIMITS
PERACETIC ACID	%W/W (MIN)	5
ACTIVE OXYGEN	%W/W (MIN)	9
pH	(MAX.)	1.0
Sp. GRAVITY @ 25° C +/- 1° C	(MIN.)	1.0
APPEARANCE	-	CLEAR
COLOR	HU. (MAX)	15

- PRODUCT QUALITY COMPLIES WITH THAI PEROXIDE SPECIFICATION.

**We are Committed to Remain our
Customers' Most Valued Supplier**

Material Safety Data

Product: BIRLOX - Peracetic Acid 5% & 12%

Emergency Telephone Nos.: SARABURI (036) 251893 - 24 HOURS
251894 - Office Hours
251895 - " "

Product Information

Chemical Family: Organic peroxide

Manufacturer:

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Precautionary Information

Health: Liquid is corrosive to the eye and skin, and direct eye contact may cause irreversible tissue damage, including blindness. Inhalation of mist or vapor will cause severe irritation of lungs/throat and nose that usually subsides after exposure ceases. Swallowing may produce corrosion (burning) of the gastrointestinal tract that may be life-threatening.

Physical: Initiates combustion in other materials by causing fire through release of oxygen.

Ingredients

Peracetic acid (PAA)	CAS-No. 79-21-0
Hydrogen peroxide (H ₂ O ₂)	CAS-No. 7722-84-1
Acetic acid	CAS-No. 64-19-7

Physical Data

Boiling Point:	ca 105° C
Appearance and state:	Clear, colorless, liquid
Odor:	pungent
Specific Gravity @ 20° C	1.0
Solubility in water % by Weight:	100
pH (as is):	1.0 - 2.0

Fire, Explosion and Reactivity Data

Flash Point: > 89°C
Autoignition Temperature: No data available
Extinguishing Media: Water / Spray
Special Fire Fighting Procedures: Any tank or container surrounded by fire should be flooded with water for cooling. Wear full protective clothing and certified, self-contained breathing apparatus.
Degree of Fire and Explosion Hazard: Contact with combustible material may cause fire. Heating >110°C may cause an explosion.
Conditions To Avoid: Excessive heat / contamination of any kind / Open flames
Major Contaminants that contribute to instability: Combustible material, reducing-agents, organic materials, metal chlorides, bases, Rust, Dirt
Incompatibility: Dirt, alkali, organics, leather, paper, wood, and heavy metals

Routes of Exposure

Eye Contact: Extremely irritating corrosive (rabbit)
Skin Contact: Mildly irritating (rabbit).
Skin Absorption: No significant hazard (rabbit).
Inhalation: TWA (ACGIH)
- H₂O₂ 1 ppm
- Acetic Acid 10 ppm
Ingestion:- Moderately hazardous (rat). LD 50 is between 225 to 1200 mg/kg.

Effects of Over Exposure

Severe irritant to eyes, nose, throat, lungs and gastrointestinal tract. May cause irreversible tissue damage to the eyes.

Material Safety Data

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FIRST AID MEASURES :

- Inhalation :** Remove from exposure, lie down. Keep warm. Oxygen or artificial respiration if needed. Obtain medical attention.
- Skin contact:** Wash off immediately and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
- Eye contact :** Rinse immediately with plenty of water for at least 15 minutes and seek medical advice.
- Ingestion :** Rinse mouth with water. Drink plenty of water. Do not induce vomiting. Call a physician immediately.

Notes to Doctor: This product can be corrosive to skin, eyes and mucous membranes. Consideration should be given to careful endoscopy as stomach or esophageal burns, perforations or strictures may occur. Careful gastric lavage with an endotracheal tube in place should be considered. Observation may be warranted. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

Special Protection

Ventilation: Ensure adequate ventilation, esp. in confined area.

Recommended Personnel Protective Equipment

- Respiratory:** In case of insufficient ventilation wear suitable respiratory equipment.
- Eyes:** Tightly fitting safety goggles and face shield. Eye wash bottle with pure water
- Hand:** Viton gloves. Do not wear leather / cotton gloves (risk of fire)
- Skin:** Full protective chemical resistant clothing. Do not wear leather shoes.

Emergency Accident

Precautions and Procedure: Keep people away. Wear full protective clothing. Use water only for fire.

Storage and Handling

Avoid excessive heat, direct sunlight and sources of ignition. Avoid contamination of any kind. Keep away from combustible materials. No smoking. Provide appropriate exhaust ventilation. Wear suitable protective clothes. Open drum / container Carefully. Content may be under pressure. Store in original container equipped with a vent.

Never return unused material to original container. Empty drums should be rinsed in water before discarding.

Disposal, Spill or Procedures

Procedure for Release of spill:

Personal precautions :

Avoid contact with skin, eye and clothing. Never return spills in original containers for reuse. Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition. Keep people away from and unwind of spill / leak.

Methods of cleaning up:

Dam up. Flush very dilute solution into sewer with plenty of water. Contact the proper local authorities. Never return spills in original containers for reuse.

Disposal Considerations

Contaminated packaging

Rinse empty containers with water before disposal. Do not reuse empty containers for other purposes.

Waste from Residues / unused products

See accidental release measures. Wear personal protective equipment. Diluted aqueous solution can be disposed as waste water, when in compliance with local regulations. Do not dispose of undiluted solutions into sewer.

Transportation

Precautions

Container should be stacked properly in transit, make sure to keep drums in upright position.

UN Number:

3109 IBC max 1.5 m³

3119 Tanks max 20 tn

Class

5.2

Packing Group

II

Type of Packages

30 kg. and 200 kg. Polyethylene drums with vented type cap

Precautionary Labels:



The information and suggestions contained herein are given purely as a guide. Thai Peroxide Co., Ltd undertake no responsibility either for the results derived from their adoption or for possible positions in apparent contrast with existing patent rights.

(Revision: 3)

Product Data Sheet

No TD / BIRLOX / 001 / R-3

BIRLOX-5
(Peracetic Acid 5%)

AN ENVIRONMENTALLY SAFE – VERSATILE ANTI-MICROBIAL AGENT & A POWERFUL OXIDANT

Description : A water like clear, colourless liquid. An aqueous equilibrium solution containing peracetic acid, hydrogen peroxide, acetic acid and special stabilizers. This product is considered environmentally safe since it decomposes to acetic acid and oxygen. Acetic acid is completely biodegradable.

Formula : CH₃ COOOH (CAS# 79-21-0)

Synonyms : Peroxy acetic Acid, Acetyl Hydroperoxide

Physical Data :

Form	Liquid
Color	Clear, Colorless
Odor	Strong pungent
Sp. Gravity @ 20°C	1.0
pH – value (1% solution)	1.0 ~ 2.0
Miscible in all proportions with	water

Chemical Composition :

Peracetic acid (Min)	: 5%
Acetic Acid, Stabilizers, water	: Balance

Product performance : Best if used within 6 months and stored at 35°C MAX

Standard Packing : 30 kg. and 200 kg. polyethylene drums with vented type cap

Established Applications of Peracetic Acid

User Industry	APPLICATIONS				
	Sanitizer	Disinfection	Sterilant	Bleaching	Chemical Oxidation / Synthesis
- Dairy Plant - Dairy Farms - Breweries - Beverage, Juices - Food processing and equipments : Meat / Bakery / Poultry / Sea Food	✓ ✓ ✓ ✓ ✓			✓	
- Poultry & Pig Farm • Hatcheries • Coops • Crates • Trucks		✓ ✓ ✓ ✓			
- Hospitals • Facility sanitisation • Medical devices (Dialyzers, etc.)		✓	✓ ✓		
- Textile : Knitted Cotton and Linen				✓	
- Process Industry • Cooling & process water		✓			✓
- Pulp & Paper • Water Circuits in paper making • Recycling / Deinking • Delignification		✓		✓ ✓ ✓	
- Laundry		✓		✓	

Product Data Sheet

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AN ENVIRONMENTALLY SAFE – VERSATILE ANTI-MICROBIAL AGENT & POWERFUL OXIDANT

User Industry	Sanitizer	Disinfection	Sterilant	Bleaching	Chemical Oxidation / Synthesis
- Household Detergent		✓			
- Municipal Waste -Sludge -Wastewater		✓ ✓			✓
- Fish Farming / Shrimp Harvesting		✓			✓
- Fats / Oils / Waxes / Glue / Starch				✓	
- Preparation of epoxy compounds from unsaturated materials eg. Epoxy plasticizers from soyabean oil					✓
- Contact lens cleaners		✓			

Note: Precleaning of all surfaces to remove soils is critical to achieve effective disinfection and sterilization.

Handling & Storage : **Safe handling advica :** Never return unused material to storage receptacle. Avoid exposure. Provide appropriate exhaust ventilation. Wear suitable protective clothes. Open drum/container carefully. Content may be under pressure.
Technical measures/Precautions : Keep away from sources of ignition. No smoking. Keep away from combustible material. Protect from Contamination. Do not heat over +30 °C
Storage : Keep in a cool, well-ventilated place. Keep away from heat, direct sunlight and sources of ignition. Store in original container equipped with a vent.
Incompatible products : Metal chlorides, bases, reducing agents, organic materials, contamination.
Spills clean up : Dam up. Flush very dilute solution into sewer with plenty of water. Never return spills in original containers for reuse.

Transport Information : UN No: 3109 Harmonized Code: 2915.29
 ADR class : 5.2 , organic peroxide type F, liquid
 : Packing Group II

Hazard Identification : Oxidizing, causes severe burns. May cause fire. Harmful by Inhalation, in contact with skin and if swallowed.

First Aid Measures :
Inhalation : Remove from exposure, lie down. Keep warm. Oxygen or artificial respiration if needed. Obtain medical attention.
Skin contact: Wash off immediately with plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Eye contact : Rinse immediately with plenty of water for at least 15 minutes and seek medical advice.
Ingestion : Rinse mouth with water. Drink plenty of water. Do not induce vomiting. Call a physician immediately.

Fire Fighting Measures : **Suitable extinguishing media :** Water, spray. *Do not use dry chemical powder type.*
Specific hazards : Contact with combustible material may cause fire. Heating >110 °C may cause an explosion.
Protective equipment for firefighters : Wear a self contained breathing apparatus, suit protecting against chemicals.

Suitable Materials of Construction

Laboratory equipments	-	Glass
Vessels, pipes, pumps & valves	-	SS-304 L, SS-316 L
Gaskets	-	PE, PTFE, Viton, Silicon, PP

Disclaimer

The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

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