

Peroxide Reagent A

Health & Safety data sheet

According to EC Directive 91/155/EC and following amendments

Date of issue: 12 September 2007

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Product name:

- Mi 590A-021 Peroxide Reagent A (test vial)

Application:

- Determination of peroxides in edible oil.

Manufacturer identification:

Milwaukee s.r.l.
c.so Leonardo da Vinci 48/50
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CENTRO ANTIVELENI
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SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients:

NAME (EC directives)	EC-Index-No.	CAS No.	LABELLING (EC directives)	CONTENT
Chloroform	602-006-00-4	67-66-3	Xn, R 22-38-40-48/20/22	≥ 20% - < 50%
Acetic acid	607-002-00-6	64-19-7	C R10-35	≥ 25% - < 90%

(Full text of R-Phrases in section 16).

SECTION 3 - HAZARD IDENTIFICATION

Harmful if swallowed. Causes burns. Irritating to skin. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

SECTION 4 - FIRST AID MEASURES

- **After inhalation** : fresh air. Call in physician. If breathing stops: mouth-to-mouth respiration or mechanical ventilation. Oxygen mask if necessary! Immediately call in physician.
- **After eye contact**:: rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophthalmologist.
- **After skin contact**: wash off with plenty of water. Immediately remove contaminated clothing.
- **After swallowing** : caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible. Immediately call in physician. Do not attempt to neutralize.

SECTION 5 – FIRE-FIGHTING MEASURES

- **Suitable extinguishing media:**
 - Water, CO₂, foam, powder.
- **Special risks:**
 - Development of hazardous combustion gases or vapors possible in the event of fire.
 - The following may develop in event of fire: hydrochloric acid, acetic acid vapours.
 - Vapours heavier than air. Forms explosive mixtures with air at ambient temperatures.
- **Special protective equipment for fire fighting:**
 - Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
- **Additional information:**
 - Prevent fire-fighting water from entering surface water or groundwater.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

- **Personal precautions:**
 - Do not inhale vapors/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms. Work under hood.
- **Environmental precautions:**
 - Do not allow to enter the sewerage system.
- **Additional notes:**
 - Take up dry. Clean up affected area and dispose according to local regulation. Render harmless: neutralize with diluted sodium hydroxide solution or by throwing on lime, lime sand, or sodium carbonate.

SECTION 7 - HANDLING AND STORAGE

- **Handling:**
 - Notes for prevention of fire and explosion:*
 - Keep away from sources of ignition. Take measures to prevent electrostatic charging.
 - Notes for safe handling:*
 - Work under hood. Do not inhale substance. Avoid generation of vapours/aerosols.
- **Storage:**
 - Tightly closed in a well-ventilated place, away from sources of ignition and heat. At +15°C to +25°C.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

- **Ingredients with occupational exposure limits to be monitored:**

EC

Name	Chloroform
Value	2 ml/m ³ 10 mg/m ³

Carcinogenic C 3: owing possible carcinogenic effects for man
Skin resorption Risk of skin absorption
- **Personal protective equipment:**
 - Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.
- **Respiratory protection:**
 - Required when vapors/aerosols are generated. Work under hood.
- **Protective gloves:**
 - Rubber or plastic
- **Eye protection:**
 - Goggles or face mask
- **Industrial hygiene:**
 - Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Work under hood . Do not inhale substance.

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

- **Appearance** : colorless
- **Odor** : pungent
- **Solubility in water** : ~16 g/L
- **Melting point** : ND
- **Boiling point** : ~ 60 °C
- **log Pow at 25°C** : ND
- **pH value at 20°C** : 2.5 @ 50 g/l H₂O
- **Density at 20°C** : 1.25 g/cm³
- **Explosion limits** : NA
- **Flash point** : ND

SECTION 10 - STABILITY AND REACTIVITY

- **Conditions to be avoided:**
 - Heating.
- **Hazardous decomposition products:**
 - In the event of fire: see section 5.
- **Further information**
 - Heat-sensitive, light-sensitive.
- **Substances to be avoided:**
 - Alkali metals, alkaline earth metals, metals (in powder form), peroxi compounds, fluorine, alcoholates, strong alkalis, ketones / alkalis, alkali hydroxides / alcohols, organic nitrocompounds, alkali amides, oxygen, oxygen / alkalis, nitrogen oxides, nonmetallic hydrogen compounds, bis(dimethylamino)dimethyl tin, amines, ammonia, alcohols / strong alkalis, phosphines.

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SECTION 11 - TOXICOLOGICAL INFORMATION

Quantitative data on the toxicity of this product are not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Acetic acid – as the pure substance

Acute toxicity

LC₅₀ (inhalation, rat): 11.4 mg/l /4 h.

LD₅₀ (dermal, rabbit): 1060 mg/kg.

LD₅₀ (oral, rat): 3310 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): burns.

Skin irritation test (rabbit): burns.

Subacute to chronic toxicity

Bacterial mutagenicity: Salmonella typhimurium: negative.

No teratogenic effect in animal experiments.

Further toxicological information

Strongly corrosive substance.

After inhalation of vapours: Irritation symptoms in the respiratory tract, pneumonia bronchitis.

Inhalation may lead to the formation of oedemas in the respiratory tract.

After skin contact: Burns.

After eye contact: Burns. Risk of blindness! Risk of corneal clouding. burns of mucous membranes.

After swallowing: Burns in oesophagus and stomach. gastric spasms, bloody vomiting, dyspnoea. Risk of perforation in the oesophagus and stomach. Pulmonary failure possible after aspiration of vomit.

Cannot be excluded: shock, cardiovascular failure, acidosis. Damage of: kidneys.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Chloroform – as the pure substance

Acute toxicity

LC₅₀ (inhalation, rat): 47.7 mg/l /4 h.

LCL₀ (inhalation, human): 25000 ppm(V) /5 min.

LD₅₀ (oral, rat): 908 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): Slight irritations.

Skin irritation test (rabbit): Slight irritations.

Subacute to chronic toxicity

The carcinogenic potential requires further clarification.

Bacterial mutagenicity: Ames test: negative.

Further toxicological information

After inhalation of vapors: coughing, dyspnoea, absorption.

After skin contact: Irritations. Drying-out effect resulting in rough and chapped skin. Danger of skin absorption.

After eye contact: Slight irritations.

After swallowing: nausea, vomiting, absorption. After accidental swallowing the substance may pose a risk of aspiration. Passage into the lung (vomiting!) can result in a condition resembling pneumonia (chemical pneumonitis).

Systemic effects:

After absorption: agitation, spasms, narcosis.

After long-term exposure to the chemical: drop in blood pressure, headache, ataxia (impaired locomotor coordination), gastrointestinal complaints, cardiovascular disorders. Damage of: liver, kidneys, heart.

Effect potentiated by: ethanol

Further data

The product should be handled with the care usual when dealing with chemicals.

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Property of this product must be anticipated on the basis from the components of the preparation:

- **After inhalation of vapors** : coughing, dyspnoea, absorption, irritation symptoms in the respiratory tract, pneumonia bronchitis.
- **After skin contact** : burns.
- **After eye contact** : burns. Risk of blindness! Risk of corneal clouding. Burns of mucous membranes.
- **After swallowing** : burns in oesophagus and stomach, gastric spasms, bloody vomiting, dyspnoea. Risk of perforation in the oesophagus and stomach. After accidental swallowing the substance may pose a risk of aspiration. Passage into the lung (vomiting!) can result in a condition resembling pneumonia (chemical pneumonitis).
Cannot be excluded: shock, cardiovascular failure, acidosis.
Damage of: kidneys.

Further data

The product should be handled with the care usual when dealing with chemicals.

SECTION 12 - ECOLOGICAL INFORMATION

Quantitative data on the ecotoxicity of this product are not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Acetic acid – as the pure substance

Biologic degradation:

Biodegradation: 99 % /30 d (closed bottle test).

Readily biodegradable.

Behavior in environmental compartments:

Distribution: log p(o/w): -0.17 (experimental).

No bioaccumulation is to be expected (log P(o/w) <1).

Passage from aqueous solution into the atmosphere is not to be expected.

Ecotoxic effects:

Biological effects:

Harmful effect on aquatic organisms. Harmful effect due to pH shift. Caustic even in diluted form.

Fish toxicity: L.macrochirus LC₅₀: 75 mg/l /96 h. P.promelas LC₅₀: 88 mg/l /96 h.

Daphnia toxicity: Daphnia magna EC₅₀: 47 mg/l /24 h.

Bacterial toxicity: Photobacterium phosphoreum EC₅₀: 11 mg/l /15 min microtox test.

Maximum permissible toxic concentration:

Algal toxicity: Sc.quadricauda IC₅: 4000 mg/l /16 h.

Bacterial toxicity: Ps.putida EC₅: 2850 mg/l /16 h neutral.

Protozoa: E.sulcatum EC₅: 78 mg/l /72 h neutral.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Chloroform – as the pure substance

Biologic degradation:

Not degradable in water.

Behavior in environmental compartments:

Distribution: log p(o/w): 2 (25 °C) (experimental);

No appreciable bioaccumulation potential is to be expected (log P(o/w) 1-3).

Distribution preferentially in air. Henry constant: 14084 Pa*m³/mol (experimental).

Ecotoxic effects:

Biological effects:

Harmful effect on aquatic organisms. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Fish toxicity: L.macrochirus LC₅₀: 18 mg/l /96 h.

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Daphnia toxicity: Daphnia magna EC₅₀: 79 mg/l /48 h.
Bacterial toxicity: activated sludge EC₅₀: 1010 mg/l /3 h; Maximum permissible toxic concentration:
Ps.putida EC₅: 125 mg/l /16 h.
Algal toxicity: Maximum permissible toxic concentration: Sc.quadricauda IC₅: 1100 mg/l /8 d.
Protozoa: Maximum permissible toxic concentration: E.sulcatum EC₅: >6560 mg/l /72 h.

Further ecologic data:

Do not allow to enter waters, waste water, or soil!

SECTION 13 - DISPOSAL CONSIDERATIONS

• Waste disposal:

- Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice.
- Handle contaminated packaging in the same way as the substance itself.

SECTION 14 - TRANSPORT INFORMATION

- **Land transport**

ADR/RID	: 9, II
UN-No.	: 3316
Name	: CHEMICAL KIT
- **Sea transport**

IMDG	: class 9/UN 3316/PG II
Name	: CHEMICAL KIT
Marine Pollutant	: No
- **Air transport**

ICAO/IATA	: 9/UN 3316/PG II
Name	: CHEMICAL KIT

These transport data apply to the COMPLETE KIT!

SECTION 15 - REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol:	C	Corrosive.
R-phrases:	22-34-38-40-48/20/22	Harmful if swallowed. Causes burns. Irritating to skin. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
S-phrases:	23-26-45	Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Contains:	Chloroform, acetic acid.	

SECTION 16 - OTHER INFORMATION

• Text of any R phrases referred to under heading 2:

- | | |
|----------|--|
| 22 | : Harmful if swallowed. |
| 35 | : Causes severe burns. |
| 38 | : Irritating to skin. |
| 40 | : Limited evidence of a carcinogenic effect. |
| 48/20/22 | : Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. |

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- **Supersedes edition of** : / (1st edition).
- **Legend** : NA Not Applicable
ND Not Determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.