

Material Safety Data Sheet

tert-Butyl monoperoxymaleate, 25 wt.% paste in dibutyl maleate

ACC# 09790

Section 1 - Chemical Product and Company Identification

MSDS Name: tert-Butyl monoperoxymaleate, 25 wt.% paste in dibutyl maleate

Catalog Numbers: AC378570000, AC378570010, AC378570050

Synonyms: Perkadox PF-DBM25

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
105-76-0	Maleic acid, dibutyl ester	69-75	203-328-4
1931-62-0	tert-Butyl monoperoxymaleate	ca 25	217-691-1
75-91-2	tert-Butyl hydroperoxide	0-3	200-915-7
110-16-7	Maleic acid	0-3	203-742-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Not available. Appearance: white liquid. Flash Point: > 60 deg C.

Not available.

Target Organs: Eyes, skin.

Potential Health Effects

Eye: Causes eye irritation. May cause irreversible eye injury.

Skin: Causes skin irritation. May be harmful if absorbed through the skin.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: Not available.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Exposure to heat may promote violent decomposition. Strong oxidizer. Contact with other material may cause fire. Will burn if involved in a fire. Combustible liquid.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam. Do NOT use halogenated agents.

Flash Point: > 60 deg C (> 140.00 deg F)

Autoignition Temperature: > 400 deg C (> 752.00 deg F)

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: 1 - health, 1 - flammability, 0 - instability

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Vacuum or sweep up material and place into a suitable disposal container. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling: Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage: Keep away from sources of ignition. Do not store near combustible materials. Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Flammables-area. Store at temperatures below the decomposition temperature. Store at room temperature or below.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Maleic acid, dibutyl ester	none listed	none listed	none listed
tert-Butyl monoperoxymaleate	none listed	none listed	none listed
tert-Butyl hydroperoxide	none listed	none listed	none listed
Maleic acid	none listed	none listed	none listed

OSHA Vacated PELs: Maleic acid, dibutyl ester: No OSHA Vacated PELs are listed for this chemical. tert-Butyl monoperoxymaleate: No OSHA Vacated PELs are listed for this chemical. tert-Butyl hydroperoxide: No OSHA Vacated PELs are listed for this chemical. Maleic acid: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Not available.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: white

Odor: faint odor

pH: ca 7

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: 60 deg C

Solubility: Insoluble.

Specific Gravity/Density: Not available.

Molecular Formula: C₈H₁₂O₅

Molecular Weight: 188.18

Section 10 - Stability and Reactivity

Chemical Stability: Light sensitive. Material is heat sensitive and may decompose at elevated temperatures.

Conditions to Avoid: Incompatible materials, temperatures above 55°C, direct sunlight..

Incompatibilities with Other Materials: Rust, iron, steel, copper, acids, alkalies, heavy metals, reducing agents, ignition or explosion may occur with readily oxidizable, organic, or flammable materials or chemical accelerants.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, peroxides, various hydrocarbons.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 105-76-0: ON0875000

CAS# 1931-62-0 unlisted.

CAS# 75-91-2: EQ4900000

CAS# 110-16-7: OM9625000

LD50/LC50:

CAS# 105-76-0:

Oral, rat: LD50 = 3700 mg/kg;

Skin, rabbit: LD50 = 10 gm/kg;

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CAS# 1931-62-0:

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CAS# 75-91-2:

Draize test, rabbit, eye: 7 mq;

Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, eye: 70 uL Severe;
Draize test, rabbit, eye: 75%;
Draize test, rabbit, eye: 0.02 mL;
Draize test, rabbit, skin: 500 mg;
Draize test, rabbit, skin: 500 mg/24H Severe;
Inhalation, mouse: LC50 = 350 ppm/4H;
Inhalation, mouse: LC50 = 1800 mg/m³/4H;
Inhalation, rat: LC50 = 500 ppm/4H;
Inhalation, rat: LC50 = 1800 mg/m³/4H;
Oral, mouse: LD50 = 320 mg/kg;
Oral, mouse: LD50 = 320

CAS# 110-16-7:

Draize test, rabbit, eye: 100 mg Severe;
Draize test, rabbit, eye: 1%/2M Severe;
Draize test, rabbit, skin: 500 mg/24H Mild;
Inhalation, rat: LC50 = >720 mg/m³/1H;
Oral, mouse: LD50 = 2400 mg/kg;
Oral, rat: LD50 = 708 mg/kg;
Skin, rabbit: LD50 = 1560 mg/kg;

Carcinogenicity:

CAS# 105-76-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 1931-62-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 75-91-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 110-16-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ORGANIC PEROXIDE TYPE E, SOLID	No information available.
Hazard Class:	5.2	
UN Number:	UN3108	
Packing Group:	II	

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 105-76-0 is listed on the TSCA inventory.
CAS# 1931-62-0 is listed on the TSCA inventory.
CAS# 75-91-2 is listed on the TSCA inventory.
CAS# 110-16-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 110-16-7: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 75-91-2: immediate, fire, reactive.

CAS # 110-16-7: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 110-16-7 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

CAS# 75-91-2 is considered highly hazardous by OSHA.

STATE

CAS# 105-76-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 1931-62-0 can be found on the following state right to know lists: New Jersey.

CAS# 75-91-2 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

CAS# 110-16-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XN O

Risk Phrases:

R 22 Harmful if swallowed.

R 36/38 Irritating to eyes and skin.

R 41 Risk of serious damage to eyes.

R 7 May cause fire.

Safety Phrases:

S 14 Keep away from ... (incompatible materials to be indicated by the manufacturer).

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 50 Do not mix with ... (to be specified by the manufacturer).

S 3/7 Keep container tightly closed in a cool, well-ventilated place.

WGK (Water Danger/Protection)

CAS# 105-76-0: 1

CAS# 1931-62-0: No information available.

CAS# 75-91-2: No information available.

CAS# 110-16-7: 1

Canada - DSL/NDSL

CAS# 105-76-0 is listed on Canada's DSL List.

CAS# 75-91-2 is listed on Canada's DSL List.

CAS# 110-16-7 is listed on Canada's DSL List.

CAS# 1931-62-0 is listed on Canada's NDSL List.

Canada - WHMIS

WHMIS: Not available.

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

Canadian Ingredient Disclosure List

CAS# 75-91-2 is listed on the Canadian Ingredient Disclosure List.

CAS# 110-16-7 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 9/20/2004

Revision #0 Date: Original.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.