



PERKADOX CH-50

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

Product label name Dibenzoyl peroxide, powder, 50% with dicyclohexyl phthalate	
Supplier Akzo Nobel Polymer Chemicals LLC 525 West Van Buren Street Chicago, IL 60607-3823 www.akzonobel-polymerchemicals.com	
Emergency telephone + 1-914-693-6946 Dobbs Ferry, NY USA	transportation emergency CHEMTREC - USA: 1-800-424-9300 CANUTEC - CANADA: 1-613-996-6666
Intended use Curing agent	
Date of last issue / Revision # 2005/12/08 / 0.04	
Chemical family peroxides	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients			
Chemical description Dibenzoyl peroxide, powder, 50% with dicyclohexyl phthalate			
Composition / information on ingredients			
Number	% w/w	CAS-number	Chemical name
1	49 - 51	000094-36-0	Dibenzoyl peroxide
2	40 - 55	000084-61-7	Dicyclohexyl phthalate

3. HAZARDS IDENTIFICATION

Emergency overview white powder with faint odor. DANGER! ORGANIC PEROXIDE. HEAT OR CONTAMINATION MAY CAUSE HAZARDOUS DECOMPOSITION. CAUSES EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. May cause fire.	
Health effects Skin and eye contact are the primary routes of exposure to this product. Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. May cause sensitization by skin contact. Irritating to eyes. This product has a low order of toxicity. No significant toxic effects are expected.	
Carcinogenicity	
Description	Applicable
IARC	no
NTP	no

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OSHA	no
ACGIH	no

4. FIRST AID MEASURES

Symptoms and effects Irritating to eyes. May cause sensitization by skin contact. Dust may be irritating to the respiratory tract and cause symptoms of bronchitis.	
First aid	
General	In all cases of doubt, or when symptoms persist, seek medical attention.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Oxygen may additionally be given, by trained personnel, if it is available. Get medical attention if symptoms occur.
Skin	Immediately wash skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.
Eye	Immediately flush eyes with plenty of water. If easy to do, contact lenses should be removed during the flushing, by trained personnel. Hold the eyelids apart during the flushing to ensure rinsing the entire surface of the eye and lids with water. Get medical attention if irritation persists.
Ingestion	Call a physician or a poison control center immediately. Induce vomiting only if directed by medical personnel. The patient should lie on their left side while vomiting to reduce the risk of aspiration. Never give anything by mouth to an unconscious or convulsing person.
Advice to physician Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Attending physician should treat exposed patients symptomatically.	

5. FIRE-FIGHTING MEASURES

Extinguishing media	waterspray, foam, sand, dry chemical powder, CO ₂ .
Unsuitable extinguishing media	halones.
Hazardous decomposition/ combustion products	CO ₂ , Carbon monoxide, Benzoic acid, Benzene.
Protective equipment	Firefighters must wear fire resistant protective equipment. Wear approved respirator and protective gloves.
Other information	Evacuate all non-essential personnel. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. Cool closed containers with water. Water used to extinguish a fire should not be allowed to enter the drainage system or water courses. After a fire, ventilate thoroughly the area and soak with water, clean the walls and metallic surfaces.
Fire and explosion hazard	CAUTION: reignition may occur. Decomposition under effect of heating (See also Section Hazardous decomposition products). If involved in a fire, it will support combustion. dust explosion hazard. Vapours may form explosive mixtures with air. In case of fire and/or explosion do not breathe fumes.



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NFPA ratings	
Hazard classes	Rating
Health	2
Flammability	3
Reactivity	3
Other information	-OX

6. ACCIDENTAL RELEASE MEASURES

<p>Personal precautions Do not breathe dust. Avoid contact with skin and eyes. For personal protection see Section 8.</p>
<p>Environmental precautions Do not allow to enter drains or water courses.</p>
<p>Methods for cleaning up Stop leakage if possible. Eliminate all sources of ignition, and do not generate flames or sparks. Sweep up and put it into a container for disposal. Avoid dust generation. Keep contents moist. The waste should NOT be confined. Flush surroundings with large amounts of water and soap.</p>
<p>Other information CAUTION: reignition may occur. Evacuate personnel to safe area.</p>

7. HANDLING AND STORAGE

<p>Handling Never weigh out in the storage room. When using do not eat, drink or smoke. Do not breathe dust. Handle in well ventilated areas. Eliminate all sources of ignition, and do not generate flames or sparks. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Keep product and emptied container away from heat and sources of ignition. Confinement must be avoided. Do not allow to dry out. Avoid shock and friction. Avoid contact with skin and eyes. Avoid Incompatible materials (See Section 10).</p>
<p>Fire and explosion prevention Use explosion protected equipment. Keep away from sources of ignition - No smoking. Avoid dust generation. Dust explosion possible in the presence of air. Use non-sparking tools in area's where explosive dust air mixtures may occur. Do not cut or weld on or near this container even when empty. Blanketing the product with nitrogen reduces the flammability, but is not fully effective above 55°C (131°F).</p>
<p>Storage requirements Store in accordance with local/national regulations. Keep away from food, drink and animal feedingstuffs. Store in a dry well ventilated place away from sources of heat and direct sunlight. Store separate from other chemicals. Keep only in the original container.</p>
<p>Storage For maximum quality store below: 25 °C.</p>
<p>Other information It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded. Wash hands thoroughly after handling or contact. Keep working clothing separately and do not take them home.</p>

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<p>Engineering controls Ensure good ventilation and local exhaustion of the working area. Explosion proof ventilation recommended.</p>
<p>Personal protection</p>
<p>Respiratory Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment (respirator with Filter P1).</p>

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Hand Wear suitable protective gloves of neoprene or synthetic rubber.
Eye Wear eye/face protection.
Skin and body Wear suitable protective clothing.
Other information Emergency-shower and facilities for rinsing eyes must be accessible. Launder clothes before reuse.

Dibenzoyl peroxide			
OSHA TLV/TWA		5 mg/m ³	
ACGIH TLV/TWA		5 mg/m ³	
NIOSH REL/TWA		5 mg/m ³	
NIOSH IDLH		1500 mg/m ³	

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor white powder with faint odor.
Boiling point/range not applicable (Decomposes)
Melting point/range Decomposes prior to melting.
Flash point not applicable
Flammability Decomposition products may be flammable.
Explosive properties no
Oxidizing properties not applicable
Vapour pressure not applicable
Density 1230 kg/m ³ (20°C / 68°F) Specific gravity = 1.23 (20 °C / 68°F)
Bulk density 640 kg/m ³ (20°C / 68°F) Specific gravity = 0.64 (20° C / 68°F)
Solubility in water Insoluble at 20°C / 68°F
Solubility in other solvents not determined
pH value not determined
Partition coefficient n-octanol/water not determined
Relative vapour density (air=1) not applicable
Viscosity not applicable

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Active oxygen content 3.3 %
Peroxide content 49-51 %
Autoignition temperature Test method not applicable (See Section 7)
SADT 55 °C. See also Section 10.
Explosion limits not determined
Volatile % not determined

10. STABILITY AND REACTIVITY

Stability	
	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 following temperature: 55 °C. Contact with incompatible substances can cause decomposition at or below the SADT 55 °C.
Conditions to avoid	
	To maintain quality store in original closed container below: 25 °C.
	Avoid shock and friction. Confinement must be avoided.
Incompatibles	
Avoid contact with rust, iron and Copper. Contact with incompatible materials such as acids, alkalis, heavy metals and reducing agents will result in hazardous decomposition. Do not mix with peroxide accelerators. Use only Stainless steel 316, PVC, polyethylene or glass-lined equipment.	
Polymerization	
Polymerization does not occur.	
Decomposition	
Hazardous decomposition products; Benzoic acid, Benzene.	
Other information	
Emergency procedures will vary depending on conditions. The customer must have an emergency response plan in place. Contact Akzo Nobel for assistance with developing an emergency response plan.	

11. TOXICOLOGICAL INFORMATION

No experimental toxicological data on the preparation as such available. The following data are applicable to the ingredient(s) listed below.	
Dibenzoyl peroxide, 78 %	
Acute toxicity	
	Oral LD50 rat:> 5000 mg/kg
	Inhalation LC50 rat:> 24.3 mg/l ; 4 hours exposure time max. attainable concentration
Irritation	
	Skin Non-irritating (4 hours exposure time)
	Eye Moderately irritating

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Sensitization

Sensitization possible by skin contact

Genotoxicity

Ames test: Not mutagenic

12. ECOLOGICAL INFORMATION

No experimental ecological data are available on the preparation as such. The following data are applicable to the ingredient(s) listed below.

Dibenzoyl peroxide, 78 %**Ecotoxicity****fish**

Acute toxicity, 96h-LC50 = 2.0 mg/l. (Poecilia reticulata.)

daphnia

48 h-EC50 : 2.91 mg/l

bacteria

Activated sludge respiration inhibition test EC50 = 35 mg/l.

Fate**Degradation Biotic**

Readily biodegradable (Closed bottle test).

13. DISPOSAL CONSIDERATIONS

Product

Due to the high risk of contamination recycling/recovery is not recommended. Waste disposal in accordance with regulations (most probably controlled incineration).

Contaminated packaging

According to local regulations. Emptied container might retain product residues. Follow all warnings even after the container is emptied.

Other information

For further advice contact manufacturer.

14. TRANSPORT INFORMATION

Land transport (ADR/ RID) and / or DOT

Class

5.2

Packing group

II

TREM-Card or ERG Number

145

UN number

3106

Proper Shipping Name

Organic peroxide type D, solid (Dibenzoyl peroxide, 50%)

Other information

This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.

Required labels

ORGANIC PEROXIDE.



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<i>Sea transport (IMDG-code/ IMO)</i>	
Class	5.2
UN number	3106
EMS	F-J, S-R
Marine pollutant	no
Proper Shipping Name	Organic peroxide type D, solid (Dibenzoyl peroxide)
Other information	Label(s): 5.2


<i>Air transport (ICAO-TI/ IATA-DGR)</i>	
UN number	3106
Class	5.2
Proper Shipping Name	Organic peroxide type D, solid (Dibenzoyl peroxide)
Other information	Label(s); 5.2

15. REGULATORY INFORMATION

Product and or components listed below are subject of the following	
Dibenzoyl peroxide	
Massachusetts Substance List	yes
New Jersey R-T-K Hazard. Sub.	yes
Penn. Hazardous Substance list	yes
SARA Title III, Section 313	yes
Toxic Subst. Cont. Act -listed	yes
Domestic Substance List-Canada	yes
Dicyclohexyl phthalate	
Toxic Subst. Cont. Act -listed	yes
Domestic Substance List-Canada	yes

Hazard classes	
Description	Applicable
EPA Immediate health	yes
EPA Delayed health	no

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EPA Fire	yes
EPA Pressure	no
EPA Reactive	yes
EHS Material	no
HMIS Hazard Rating Source	HMIS
HMIS Health	2
HMIS Flammability	3
HMIS Reactivity	3
WHMIS Hazard classes	B-4,C,D-2B,F
	

Other regulatory information

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 the Controlled Products Regulations.

16. OTHER INFORMATION

History
Other information PERKADOX: This is a registered trademark of Akzo Nobel Chemicals BV or any of its affiliated companies in one or more territories in the world.
Date of printing/ pdf file generated 2006/11/20
Revision 0.04
Composed by N. Shoshenskiy, Regulatory Affairs - North America.J.W. Wessels - Regulatory Affairs - Europe.
Changes were made in section globalized
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