PERKADOX BTW-50

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

Product Identifier Dibenzoyl peroxide, paste, 50% in dipropylene glycol dibenzoate
Supplier Akzo Nobel Polymer Chemicals LLC 525 West Van Buren Street Chicago, IL 60607-3823 www.akzonobel.com/polymer

Emergency telephone +1-914-693-6946 Chicago, IL USA	**transportation emergency** CHEMTREC - USA: 1-800-424-9300 CANUTEC - CANADA: 1-613-996-6666

Relevant identified uses of the substance or mixture Curing agent
Date of last issue / Revision number 2012/09/03 / 3.01
Chemical family peroxides

2. HAZARDS IDENTIFICATION

Emergency overview **DANGER!** ORGANIC PEROXIDE HEAT OR CONTAMINATION MAY CAUSE HAZARDOUS DECOMPOSITION CAUSES EYE IRRITATION MAY CAUSE ALLERGIC SKIN REACTION VERY TOXIC TO AQUATIC ORGANISMS Peroxides and peroxide decomposition products are flammable and can ignite with explosive force if confined.
Appearance white paste with faint odor.
Health effects Skin and eye contact are the primary routes of exposure to this product. May cause sensitization by skin contact. Irritating to eyes.
Carcinogenicity

Description	**Applicable**
IARC	no
NTP	no
OSHA	no
ACGIH	no

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on hazardous ingredients
Chemical description Dibenzoyl peroxide, paste, 50% in Dipropylene glycol dibenzoate
Composition / information on ingredients

Number	**% w/w**	**CAS-number**	**Chemical name**
1	50	000094-36-0	Dibenzoyl peroxide
2	10 - 30	007732-18-5	Water
3	20 - 30	027138-31-4	Dipropylene glycol dibenzoate
4	0.5 - 1.5	000557-05-1	zinc distearate

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Other information This material is classified as hazardous under OSHA regulations.

4. FIRST AID MEASURES

Most important symptoms and effects Irritating to eyes. May cause sensitization by skin contact.	
Description of first aid measures	
	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.
Indication of any immediate medical attention and special treatment needed 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, CO2.
Unsuitable extinguishing media halons.
Hazardous decomposition / combustion products CO2, 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. In case of fire and/or explosion do not breathe fumes.

NFPA ratings	
Hazard classes	**Rating**
Health	2

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Flammability	2
Reactivity	2
Other information	

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid contact with skin and eyes. For personal protection see Section 8.

Environmental precautions
Do not allow to enter drains or water courses.

Methods and material for containment and cleaning up
Stop leakage if possible. Eliminate all sources of ignition, and do not generate flames or sparks. Transfer remaining product from leaking container to a clean and suitable container. Cover the remainder with inert absorbent (e.g. vermiculite) for disposal. Keep contents moist. The waste should NOT be confined. Flush surroundings with large amounts of water and soap.

Other information
CAUTION: reignition may occur. Evacuate personnel to safe area.

7. HANDLING AND STORAGE

Precautions for safe handling
Never weigh out in the storage room. When using do not eat, drink or smoke. Do not breathe fumes/vapor. 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 contact with skin and eyes. Avoid Incompatible materials (See Section 10).

Fire and explosion prevention
Do not cut or weld on or near this container even when empty.

Conditions for safe storage
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. Keep container upright to prevent leakage.

Storage

For maximum quality store below: 25 ℃.

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 work clothes separate and do not take them home.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Ensure good ventilation and local exhaustion of the working area. Explosion proof ventilation recommended.

Personal protection

Respiratory
Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment (respirator with Filter P1).

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.

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Dibenzoyl peroxide		
OSHA TLV/TWA	5 mg/m³	
ACGIH TLV/TWA	5 mg/m³	
NIOSH REL/TWA	5 mg/m³	
NIOSH IDLH	1500 mg/m³	
zinc distearate		
OSHA TLV/TWA	10 mg/m³	total dust.
OSHA TLV/TWA	5 mg/m³	respirable dust fraction.
NIOSH REL/TWA	10 mg/m³	total.
NIOSH REL/TWA	5 mg/m³	Respirabel dust

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance paste
Color white
Odor faint
Boiling point/range not applicable (Decomposes)
Melting point/freezing point not determined
Flash point Above the SADT value.
Flammability Decomposition products may be flammable.
Explosive properties no
Oxidizing properties not applicable
Vapor pressure not determined
Density 1200 kg/m³ (20℃ / 68℉) Specific gravity = 1.20 (20℃ / 68℉)
Solubility in water Partly soluble in water (20℃ / 68℉)
Solubility in other solvents not determined
pH value not determined
Partition coefficient n-octanol/water not determined
Relative vapor density (air=1) Dipropyleneglycol dibenzoate at 20℃ / 68℉ : 10.8
Viscosity thixotropic paste (20℃ / 68℉)
Active oxygen content 3.25 %

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Peroxide content 50 %
Autoignition temperature Test method not applicable (See Section 7)
SADT 50 ℃. See also Section 10.
Upper/lower flammability or explosive limits not determined
Volatile % not determined

10. STABILITY AND REACTIVITY

Chemical 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: 50 ℃. Contact with incompa tible substances can cause decomposition at or below the SADT 50 ℃.
Conditions to avoid	
	To maintain quality store in original closed container below: 25 ℃.
	Avoid shock and friction. A high degree of confinement must be avoided.
Incompatible materials Avoid contact with rust, iron and Copper. Contact with incompatible materials such as acids, alkalies, heavy metals and reducing agents will result in hazardous decomposition. Do not mix with peroxide accelerators. Use only Stainless steel 316, PP, polyethylene or glass-lined equipment . Contact Akzo Nobel for more information.	
Possibility of hazardous reactions Polymerization does not occur.	
Hazardous decomposition products 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 >5000 mg/kg (rat)
	Inhalation LC50 >24300 mg/m³ (rat), dust
	Germ cell mutagenicity Not mutagenic
	Irritation
	Skin Minimally irritating
	Eye Irritating to eyes. (rabbit)
	Sensitization Sensitizing (skin)

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Genotoxicity No evidence of genotoxic effects in vivo. No evidence of genotoxic effects in vitro.
Carcinogenicity / Mutagenic data not carcinogenic
Chronic toxicity / Carcinogenicity 29 days, No Observed Adverse Effect Level (NOAEL); 1000 mg/kg/day No Observed Adverse Effect Level (NOAEL); 500 mg/kg/day (oral)

Dipropyleneglycol dibenzoate
zinc distearate

Acute toxicity
Oral LD50 oral LD50 rat >5 g/kg

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 96h-LC50: 0.06 mg/l
daphnia 48h-EC50: 0.11 mg/l (Daphnia magna)
algae 72h-EC50: 0.06 mg/l
bacteria Activated sludge respiration inhibition test EC50: 35 mg/l
Fate
Degradation Abiotic Half-life: 2.4 hours at 50℃
Degradation Biotic Inherently biodegradable.
Bioaccumulation Bio Concentration Factor (BCF): 66.6
Fate Koc = 3.8 at 22 ℃
Other information Very toxic to aquatic organisms.

zinc distearate
Ecotoxicity

Bioaccumulation Biodegradable

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).

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Contaminated packaging According to local regulations. Emptied container might retain product residues. Follow all warnings even after the container is emptied. Do not wash residues into drains or other waterways.
Other information For further advice contact manufacturer.

14. TRANSPORT INFORMATION

Land transport
Transport hazard class 5.2
TREM-Card or ERG number NA ERG No. 145
UN number 3108
Proper Shipping Name Organic peroxide type E, solid (Dibenzoyl peroxide, 50%)
Other information This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.
Required labels 5.2

Sea transport (IMO / IMDG-code)
Transport hazard class 5.2
UN number 3108
EMS F-J, S-R
Marine pollutant yes
Proper Shipping Name Organic peroxide type E, solid (Dibenzoyl peroxide)
Other information Label(s): 5.2

Air transport (ICAO-TI / IATA-DGR)
UN number 3108
Transport hazard class 5.2
Proper Shipping Name Organic peroxide type E, solid (Dibenzoyl peroxide)
Other information Label(s); 5.2

15. REGULATORY INFORMATION

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Product and or components listed below are subject to 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
US Toxic Subst. Cont. Act (TSCA)	yes
Non-Domestic Subst.List-Canada	no
Domestic Substance List-Canada	yes
California Hazardous Substances	yes
Connecticut Hazardous Material Survey	yes
Illinois Toxic Substances Disclosure to Es	yes
Minnesota Hazardous Substance	yes
Rhode Island Hazardous Substances	yes
Water	
US Toxic Subst. Cont. Act (TSCA)	yes
Non-Domestic Subst.List-Canada	no
Domestic Substance List-Canada	yes
Dipropylene glycol dibenzoate	
US Toxic Subst. Cont. Act (TSCA)	yes
Non-Domestic Subst.List-Canada	no
Domestic Substance List-Canada	yes
zinc distearate	
CERCLA Hazardous Substance	yes
Massachusetts Substance List	yes
New Jersey R-T-K Hazard. Sub.	yes
Penn. Hazardous Substance list	yes
SARA Title III, Section 313	yes
US Toxic Subst. Cont. Act (TSCA)	yes
Non-Domestic Subst.List-Canada	no
Domestic Substance List-Canada	yes
California Hazardous Substances	yes
Connecticut Hazardous Material Survey	yes
Illinois Toxic Substances Disclosure to Es	yes
Minnesota Hazardous Substance	yes
Rhode Island Hazardous Substances	yes

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

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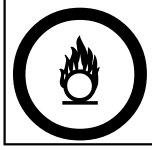
EPA Pressure	no
EPA Reactive	yes
EHS Material	no
Hazard Rating Source	HMIS
HMIS Health	2
HMIS Flammability	2
HMIS Reactivity	2
WHMIS Hazard classes	C,D-2B,F



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.

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Composed by
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Changes were made in section

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