

# 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name Perkadox PD-50S-ps	Chemical description 2,4-Dichlorobenzoyl peroxide in silicone oil
Synonym Peroxide, bis(2,4-dichlorobenzoyl) in Silicone oil	Chemical formula MIXTURE
CAS number MIXTURE	Chemical family Organic Peroxides/Diacyl peroxides
Supplier Akzo Nobel Polymer Chemicals LLC 300 South Riverside Plaza Chicago, IL 60606 USA	
Medical/Handling Emergency + 1-914-693-6946 Dobbs Ferry, NY USA	Transportation Emergency CHEMTREC - USA: 1-800-424-9300 CANUTEC - CANADA: 1-613-996-6666
Product use Rubber production	Product/technical Information 1-800-828-7929
Date of first issue 05-06-1998	Date of last issue / Revision # 05-06-1998 / 0.00

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Percentage(s)	CAS number
Di-2,4-dichlorobenzoyl peroxide	50.00	133-14-2
Polydimethylsiloxane	48.00	63148-62-9
Water	2.00	7732-18-5

## 3. HAZARDS IDENTIFICATION

# **Emergency overview**

Thick, white paste with a slight odor.

DANGER!

ORGANIC PEROXIDE.

HEAT OR CONTAMINATION MAY CAUSE HAZARDOUS DECOMPOSITION.

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Peroxides and peroxide decomposition products are flammable and can ignite with explosive force if confined.

#### **Health effects**

Skin or eye contact and inhalation of vapor or mists are the principal routes of exposure to this product.

May cause irritation of the nose, throat and lungs.

Prolonged skin contact may cause irritation and redness.

Eye contact may cause irritation.

If swallowed, this product may cause irritation of the mouth, throat, and stomach.

Carcinogenicity	
Description	Applicable
IARC	no
NTP	no
OSHA	no

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# 4. FIRST AID MEASURES

# Inhalation

Remove to fresh air. If breathing becomes difficult, oxygen may be given, preferably with a physician's advice. If not breathing, give artificial respiration. Get medical attention.

#### Skin

Immediately remove contaminated clothing and shoes. Wash skin with soap and plenty of water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Get medical attention. Wash contaminated clothing before reuse. Thoroughly clean or destroy contaminated shoes.

#### Eye

Flush eyes with large quantities of running water for a minimum of 15 minutes. If the victim is wearing contact lenses, remove them. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. DO NOT let victim rub eye(s). Do not attempt to neutralize with chemical agents. Oils or ointments should not be used at this time. Get medical attention if eye irritation occurs.

#### Ingestion

Immediately give several glasses of water. DO NOT induce vomiting. If vomiting occurs, keep head below hips to reduce the risk of aspiration. Give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. Never give anything by mouth to a person who is unconscious or convulsing.

If victim is unconscious, monitor pulse, breathing and airway. If breathing stops, begin artificial respiration immediately. If the heart has stopped, give cardiopulmonary resuscitation (CPR). Get medical attention immediately.

# Note to physician

Persons with pre-existing skin disease may be at an increased risk if exposed dermally to this material.

No specific antidote is known. Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical conditions.

# 5. FIRE-FIGHTING MEASURES

Flash point not determined	Autoignition temperature not determined	
Flash Method N/A	Explosion limits lower: N/D upper: N/D	

# **Extinguishing media**

Use water fog, dry chemical, carbon dioxide, or foam extinguishing agents. Extinguish large fires with large amounts of water spray, fog or foam from a safe/protected position.

#### Fire fighting procedures

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate non-essential personnel from the fire area. Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. If possible, move containers from the fire area. If not leaking, keep fire exposed containers cool with a water fog or spray to prevent rupture due to excessive heat. High pressure water may spread product from broken containers increasing contamination or fire hazard. Dike fire control water for later disposal. Do not allow contaminated water to enter waterways.

# Fire and explosion hazards

Peroxides and peroxide decomposition products are flammable and can ignite with explosive force if confined. This product can produce flammable vapors which may travel to a source of ignition and flash back.

#### Hazardous products of combustion

Thermal decomposition produces oxides of carbon and/or hazardous fumes, vapors and/or gasses including polychlorinated biphenyls (PCB)(2,2',4,4'-tetrachlorobiphenyl).



NFPA ratings		
Hazard	Rating	
Health	2	
Flammability	2	
Reactivity	2	
Other		

# 6. ACCIDENTAL RELEASE MEASURES

# Methods for cleaning up

Remove all sources of ignition from the spill area. Stop source of spill. If tools are needed, they should be non-sparking. Dike area to prevent spill from spreading.

Evacuate all non-essential personnel upwind. Any person entering an area of a significant spill or of an uriknown concentration of a gas or a vapor should use a NIOSH-approved, positive-pressure/pressuredemand, self-contained breathing apparatus. Protective equipment to prevent skin and eye contact should be worn. Soak up spilled material with a suitable absorbent such as clay,sand or earth. Sweep up absorbed material and place in a chemical waste container for disposal.

# 7. HANDLING AND STORAGE

#### Handling

Containers should be located in an area where they can be rotated regularly (first in, first out) and visually inspected for damage or bulging on a regular basis.

Use approved equipment for transport of containers to avoid puncturing or rupturing containers. Do not use air pressure to empty containers.

Protective equipment should be worn when handling this product to avoid eye and skin contact.

Emptied container may retain product residues. Follow all warnings and precautions even after container is emptied.

#### Storage

To insure product quality, storage temperatures should not exceed 86 F (30 C). To insure against possible exothermic self-accelerating decomposition, storage temperatures must not exceed 131 F (55 C). This emergency temperature is derived from the SADT (see Sect. 10). Keep containers tightly closed. Store away from reducing agents (e.g. amines, acids, alkalis) and heavy metal compounds (e.g. driers metal soaps and accelerators).

# Maximum storage temperature

86.00 °F 30.00 °C

#### General comments

Containers should not be opened until ready for use. Use clean non-sparking equipment and tools when handling.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Respiratory protection

Use a NIOSH-approved organic vapor respirator with dust, mist and fume filters to reduce potential for inhalation exposure if use conditions generate vapor, mist or aerosol and adequate ventilation (e.g., outdoor or well-ventilated area) is not available. Where exposure potential necessitates a higher level of protection, use a NIOSH-approved, positive-pressure/pressure-demand, air-supplied respirator.

When using respirator cartridges or canisters, they must be changed frequently (following each use or at the end of the workshift) to assure breakthrough exposure does not occur.

#### Skin protection

Skin contact with this product should be prevented through the use of suitable protective clothing, gloves, and footwear selected with regard for use condition exposure potential.



#### Eye protection

Because eye contact with this product may cause irritation, chemical goggles and/or a face shield should be worn when handling this product.

# Ventilation protection

Local exhaust ventilation, enclosed system design, continuous moni- toring devices, process isolation and remote control are traditional exposure control techniques which may be used to effectively minimize employee exposure.

#### Other information

Safety showers, with quick opening valves which stay open, and eye wash fountains, or other means of washing the eyes with a gentle flow of cool to tepid tap water, should be readily available in all areas where this material is handled or stored. Water should be supplied through insulated and heat-traced lines to prevent freezeups in cold weather.

#### Applicable exposure limits

Other than any exposure limits which may be displayed in Section 8, there are no other known exposure limits applicable to this product or its components.

Agency	Value/Unit of measurement
PEL = Permissible Exposure Limit	
TLV = Threshold Limit Value TWA = Time Weighted Average	
STEL = Short Term Exposure Limit	
CEIL = Ceiling Exposure Limit REL = Recommended Exposure Limit	
WEEL = Workplace Environmental Exposure Limit	
IDLH = Immediate Dangerous to Life and Health	

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor Thick, white paste with a slight odor.	pH value not determined
Odor threshold (ppm) not determined	Relative vapor density (air=1) N/D
Volatile % N/D	Vapor pressure (mm Hg) not determined
Boiling point/range not determined	Evaporation rate not determined
Melting point/range not determined	
Cloud point N/D	Pour point not determined
Flash point not determined	Solubility in water Insoluble
Flash method N/A	Solubility in other solvents not determined
Autoignition temperature not determined	
Specific Gravity/Density approx. 1.25 @ 25 deg C (77 deg F)	Partition coefficient n-octanol/water not determined
Bulk density nct determined	



Other information	Explosion limits
SADT = 140 F (60 C) (See Sect. 10).	lower: N/D
	upper: N/D

# 10. STABILITY AND REACTIVITY

#### Stability

This product is stable at ambient temperatures but may decompose if exposed to temperatures above 131 F (55 C).

#### Incompatibilities

This product is incompatible with strong acids, strong alkalis, reducing agents and accelerators.

# **Polymerization**

Hazardous polymerization will not occur.

#### Decomposition

Thermal decomposition will produce oxides of carbon and can produce flammable and/or combustible vapors and gases including polychlorinated biphenyls (PCB) (2,2',4,4' tetrachlorobiphenyl).

#### Conditions to avoid

The SADT for this product is 140 F (60 C). The SADT (self accelerating decomposition temperature) is an experimentally derived temperature at which a typical package of the product will undergo self accelerating decomposition. Decomposition can be expected to be hazardous and uncontrollable. Under no circumstances should this product be exposed to temperatures near or above the emergency temperature of 131 F (55 C). Such an exposure could initiate hazardous decomposition. Contact with incompatible materials such as acids, alkalis, heavy metals and reducing agents will also result in hazardous decomposition.

# 11. TOXICOLOGICAL INFORMATION

Oral LD50	The acute oral LD50 for this product is greater than 5000 mg/kg (practically nontoxic).
Dermal LD50	The LD50 in rabbits for this product is greater than 8000 mg/kg. The product may cause irritation.
Inhalation LC50	Inhalation toxicity data is not available for this product. Inhalation may cause respiratory tract irritation.
Skin	Chronic dermal effects for this product are not known. This product may cause irritation.
Eye	This product is a mild irritant to rabbit eyes.
Chronic toxicity/carcinogenicity	Chronic ingestion effects of this product are not known.
	Chronic inhalation exposure effects of this product are not known. This product cause respiratory tract irritation.
	The carcinogenic/mutagenic properties of this product are not known.
	The reproductive toxicity of this product is not known.
	The neurotoxic effects of this product are not known.
	Overexposure to this product may affect the skin, eyes and respiratory system.



Other toxicological information	No other toxic effects for this product are known.

# 12. ECOLOGICAL INFORMATION

Ecotoxicological information	The 96 hr LC50(guppy) is greater than 100 mg/L (practically nontoxic)
Bioaccumulation	This product is not readily biodegradable.
Other information	Other ecological information on this product is not known.

# 13. DISPOSAL CONSIDERATIONS

# Waste disposal in accordance with regulations

The characteristic of reactivity per RCRA would be exhibited by the unused product if it becomes a waste material.

# **Container disposal**

Containers should be drained of residual product before disposal. Empty containers should be disposed of in accordance with all applicable laws and regulations.

# 14. TRANSPORT INFORMATION

Shipping description	ORGANIC PEROXIDE TYPE D, SOLID (DI-2,4-DICHLOROBENZOYL PEROXIDE, 50%) 5.2, UN3106, PG II NORTH AMERICAN ERG NO: 145
Required labels	ORGANIC PEROXIDE.
Environmentally hazardous substance	This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.

# 15. REGULATORY INFORMATION

Products and/or components listed below are subject to the following:  Di-2,4-dichlorobenzoyl peroxide		
Toxic Subst. Cont. Act -listed	yes	
Domestic Substance List-Canada	yes	
Polydimethylsiloxane		
Toxic Subst. Cont. Act -listed	yes	
Domestic Substance List-Canada	yes	
Water		
Toxic Subst. Cont. Act -listed	yes	
Domestic Substance List-Canada	yes	

Hazard classes	
Description	Applicable
HMIS Hazard Rating Source	HMIS

# Akzo Nobel Polymer Chemicals LLC MATERIAL SAFETY DATA SHEET



# Perkadox PD-50S-ps

HMIS Health	2
HMIS Flammability	2
HMIS Reactivity	2
WHMIS Hazard Class	C, D-2B, F

# Other regulatory information

No other regulatory information is available on this product.

# **16. OTHER INFORMATION**

# Other information

PERKADOX is a registered trademark of Akzo Nobel Chemicals Inc.

#### Created by

PRODUCT SAFETY (914)674-5000

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