

SAFETY DATA SHEET**AKPEROX HC9**

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name AKPEROX HC9
Chemical name Tert-Butyl Perbenzoate

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Industrial use.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Manufacturer AKPA KİMYA AMBALAJ SANAYİ VE TİCARET ANONİM ŞİRKETİ
Yenibosna Merkez Mah. Ladin Sok. No:36/70 Kat:12 34197
Townofis Bahçelievler, İstanbul, TÜRKİYE
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TEL: +90 212 580 55 59
FAX: +90 212 580 55 21
E-mail: info@akpakimya.com
Contact person Export Department - export@akpakimya.com

1.4. Emergency telephone number

Emergency telephone CHEMTREC: TOLL Free 1-800-424-9300 / Local: +1-703-527-3887
For product information AKPA CHEMICALS US: +1 803 686 2888

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

Physical hazards Flam. Liq. 3 - H226; Org. Perox. C - H242
Health hazards Acute Tox. 3 - H331; Skin Irrit. 2 - H315; Skin Sens. 1 - H317
Environmental hazards Aquatic Acute 1 - H400; Aquatic Chronic 3 - H412

2.2. Label elements**Pictogram****Signal Word****Hazard statements****Danger**

H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
H315 Causes skin irritation.

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- H317** May cause an allergic skin reaction.
- H331** Toxic if inhaled.
- H400** Very toxic to aquatic life.
- H412** Harmful to aquatic life with long lasting effects.

Precautionary statements

- P210** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P220** Keep away from acids, alkalis, heavy metal compounds, oxidizing material, combustible materials.
- P261** Avoid breathing vapour/spray.
- P273** Avoid release to the environment.
- P280** Wear protective gloves/protective clothing/eye protection/face protection.
- P301+310 IF SWALLOWED:** Immediately call a POISON CENTER or doctor/physician.
- P302+P352 IF ON SKIN:** Wash with plenty of soap and water.
- P304+312 IF INHALED:** Call a POISON CENTER/doctor if you feel unwell.
- P411+P235** Store at temperatures not exceeding max. +5°C / +30°C. Keep cool.
- P501** Dispose of contents/ container in accordance with national regulations.

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Contains

tert-butyl perbenzoate, pentane-2,4-dione

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Tert-butyl Perbenzoate		%79-81	
REACH Reg. No: 01-2119513317-46-0005			
CAS Number	614-45-9	EC Number	210-382-2
Classification			
Org. Perox. C	H242		
Acute Tox. 4	H332		
Skin Irrit. 2	H315		
Skin Sens. 1	H317		
Aquatic Acute 1	H400		
Aquatic Chronic 3	H412		

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Pentane-2,4-Dione		%19-21	
REACH Reg. No: 01-2119458968-15-0020			
CAS Number	123-54-6	EC Number	204-634-0
Classification			
Flam. Liq. 3	H226		
Acute Tox. 4	H302		
Acute Tox. 3	H311		
Acute Tox. 3	H331		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

NOTE! Effects may be delayed. Keep affected person under observation. Chemical burns must be treated by a physician.

Inhalation

Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.

Ingestion

Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately!

Skin contact

Remove victim immediately from source of exposure. Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

Protection of first aiders

First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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4.2. Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	Congestion of the lungs may occur producing severe shortness of breath. May cause stomach pain or vomiting.
Skin contact	May cause skin irritation/eczema.
Eye contact	May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing Media	Halon. Direct water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards	In case of fire, toxic gases may be formed. Vapours may form explosive air mixtures even at room temperature. Containers can burst violently when heated, due to excess pressure build-up.
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Hazardous decomposition products

Fire causes formation of toxic gases. Forms explosive mixtures with air. May explode when heated or when exposed to flames or sparks.

5.3. Advice for firefighters

Protective actions during firefighting	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Face mask, protective gloves and safety helmet.
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Special protective equipment for firefighters

Use pressurised air mask if product is involved in a fire. Cool containers exposed to flames with water until well after the fire is out. If possible, fight fire from protected position. Move container from fire area if it can be done without risk. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control. If risk of water pollution occurs, notify appropriate authorities.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet. Do not smoke, use open fire or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions

Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Dike far ahead of larger spills for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to the other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Keep away from heat, sparks and open flame. Avoid inhalation of vapours/spray and contact with skin and eyes. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not handle broken packages without protective equipment.

Advice on general occupational hygiene

Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Observe good chemical hygiene practices. Mechanical ventilation or local exhaust ventilation may be required. Container must be kept tightly closed. Protect against direct sunlight.

7.2. Conditions for safe storage, including any incompatibilities

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Storage precautions

Keep away from oxidisers, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place. Avoid contact with oxidising agents. Store away from: Acids. Alkalis. Heavy metal compounds. Oxidising material - Keep away from flammable and combustible materials. Store in closed original container at temperatures not exceeding 25°C. Keep cool. Provide an adequate ventilation system.

Storage Class

IIA

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control Parameters

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
tert-butyl perbenzoate	General Population	Oral	Long-term exposure	0,625 mg/kg bw/day
	Workers	Dermal	Long-term exposure	6,25 mg/kg bw/day
	General Population	Dermal	Long-term exposure	3,125 mg/kg bw/day
	Workers	Inhalation	Long-term exposure	4 mg/m ³
	General Population	Inhalation	Long-term exposure	1 mg/m ³

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
tert-butyl perbenzoate	Fresh water	0,008 mg/l
	Marine water	0,0008 mg/l
	Fresh water sediment	0,22 mg/kg
	Marine sediment	0,6 mg/kg
	Sewage treatment plant	0,6 mg/kg
	Soil	0,0393 mg/l

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. All handling to take place in well-ventilated area.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Isolate contaminated clothing and wash before reuse. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Wash promptly with soap & water if skin becomes contaminated.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Wear suitable mask. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14 387 and EN143. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask

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respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste controls according to local and national provisions.

SECTION 9: Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Appearance	Liquid.
Colour	Clear.
Odour	Characteristic.
Melting point	Not available.
Flash point	56,5 °C
Bulk density	Not available.
Relative Density	1,03 ± 0,005 gr/cm ³ (@20°C)
Solubility(ies)	Partially soluble in water.
Viscosity	4 mPa.s (@20°C)

9.2. Other information

Active Oxygen Content	6,51 - 6,68 %
SADT	>56,5°C

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Polymerization does not occur.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time. Keep away from heat, sparks, open flames or hot surfaces. – No smoking.
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10.5. Incompatible materials

Materials to avoid	Strong acids. Strong reducing agents. Bases, alkalis (organic). Organic peroxides/hydroperoxides.
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10.6. Hazardous decomposition products

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Hazardous decomposition Products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrocarbons.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Product Information****Toxicological information**

ATE oral (mg/kg) 3.000,0
ATE vapour (mg/kg) 9,02
ATE dermal (mg/kg) 4.157,89

**Serious eye damage/irritation:
Skin corrosion/irritation:**

Based on available data the classification criteria are not met.
Causes skin irritation.

**Respiratory or skin sensitisation:
Respiratory sensitisation
Skin sensitisation**

Based on available data the classification criteria are not met.
May cause an allergic skin reaction.

Germ cell mutagenicity:

Genotoxicity - In Vitro - In Vivo Based on available data the classification criteria are not met.

Carcinogenicity:

Based on available data the classification criteria are not met.

**Reproductive Toxicity - Fertility
Reproductive Toxicity –
Development**

Based on available data the classification criteria are not met.
Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

STOT - Single exposure

Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

Based on available data the classification criteria are not met.

Aspiration Hazard

Based on available data the classification criteria are not met.

Inhalation

May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin contact

Irritating to skin. May cause sensitisation by skin contact.

Eye contact

May cause temporary eye irritation.

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Toxicology Data For The Ingredients:**Pentane-2,4-Dione**

Acute oral toxicity	LD50: 570 mg/kg	Species: Rat
Acute dermal toxicity	LD50: 790 mg/kg	Species: Rat
Acute inhalation toxicity	LC50: 5,1 mg/l	Exposure time: 4h

tert-butyl perbenzoate

Acute inhalation toxicity	LC50: >1.01 mg/l	Exposure time: 4h
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SECTION 12: Ecological Information**12.1. Toxicity****Ecological information on ingredients.****Pentane-2,4-Dione**

Toxicity to fish	LC50, 96h: (Pimephales promelas): 104 mg/l
Toxicity to daphnia and other aquatic invertebrates	EC50, 48h: (Daphnia magna): 25,9 mg/l
Toxicity to algae	IC50, 72h: (Pseudokirchneriella subcapitata): 83,2 mg/l
Toxicity to microorganisms	EC50, 3h: 107,6 mg/l EC10, 3h: 13,2 mg/l

tert-butyl perbenzoate

Toxicity to fish	LC50, 96h: (Danio rerio (zebra fish)): 1.6 mg/l
Toxicity to algae	EC10, 72h: (Pseudokirchneriella subcapitata (green algae)): 0.44 mg/l ErC50, 72h: (Pseudokirchneriella subcapitata (green algae)): 0.8 mg/l
Toxicity to bacteria	EC50, 0.5h: (activated sludge): 43 mg/l
Toxicity to daphnia and other aquatic invertebrates	EC50, 48h: (Daphnia magna (Water flea)): 11 mg/l

12.2. Persistence and degradability**Persistence and degradability**

There are no data on the degradability of this product.

12.3. Bio accumulative potential**Bio accumulative potential**

No data available on bioaccumulation.

12.4. Mobility in soil**Mobility**

The product is partly miscible with water and may spread in the aquatic environment.

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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. When handling waste, consideration should be made to the safety precautions applying to handling of the product

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Environmental Manager must be informed of all major spillages.

SECTION 14: Transport information

General information

For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

14.1. UN number

UN No. (ADR/RID)	3103
UN No. (IMDG)	3103
UN No. (ICAO)	3103
UN No. (ADN)	3103

14.2. UN proper shipping name

Proper Shipping name(ADR/RID)	ORGANIC PEROXIDE TYPE C, LIQUID (tert-butyl perbenzoate)
Proper Shipping name (IMDG)	ORGANIC PEROXIDE TYPE C, LIQUID (tert-butyl perbenzoate)
Proper Shipping name (ICAO)	ORGANIC PEROXIDE TYPE C, LIQUID (tert-butyl perbenzoate)
Proper Shipping name (ADN)	ORGANIC PEROXIDE TYPE C, LIQUID (tert-butyl perbenzoate)

14.3. Transport hazard class(es)

ADR/RID class	5.2
ADR/RID label	5.2
IMDG class	5.2

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ICAO class/division	5.2
ADN class	5.2

Transport labels

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

EmS	F-J, S-R
Emergency Action Code	2WE
Hazard Identification Number (ADR/RID)	-
Tunnel restriction code	(D)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk according to Annex II of MARPOL Not Applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations
Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.

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EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Storage Class

IIA

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information**Key literature references and sources for data**

This SDS is prepared based on the information received from the product owner.

Classification procedures according to Regulation (EC) 1272/2008

Acute Tox. 3 - H331; Skin Irrit. 2 - H315; Skin Sens. 1 - H317; Aquatic Acute 1 - H400; Aquatic Chronic 3 - H412: Calculation Method. Flam. Liq. 3 - H226; Org. Perox. C - H242: Expert Judgement

Training advice

Read and follow manufacturer's recommendations. Only trained personnel should use this material.

Revision comments

The SDS is generated in accordance with the 1907/2006 REACH and 1272/2008 CLP regulations.

Issued By

Simge ARIK - lab@akpakimya.com +90 282 361 80 99

Issued Date

25.11.2009

Revision date

30.10.2019

Revision

5.0

Hazard statements in full**H226**

Flammable liquid and vapour.

H242

Heating may cause a fire.

H302

Harmful if swallowed.

H311

Toxic in contact with skin.

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

H331

Toxic if inhaled.

H400

Very toxic to aquatic life.

H412

Harmful to aquatic life with long lasting effects.

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This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.