



SAFETY DATA SHEET

AKPEROX MIKP

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 MIKP **Chemical name** Methyl isobutyl ketone peroxide 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 **Supplier** AKPA KİMYA AMBALAJ SANAYİ VE TİCARET ANONİM ŞİRKETİ Yenibosna Merkez Mah. Ladin Sok. No:36/70 Kat:12 34197 Townofis Bahçelievler, İstanbul, TÜRKİYE Web: www.akpakimya.com 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** AKPA Kimya : +90 212 580 55 59 **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 3 - H226; Org. Perox. D - H242
Health hazards	Acute Tox. 4 - H302; Asp. Tox. 1 - H304; Skin Sens. 1 - H317; Skin Corr. 1C - H314;
	Eye Dam. 1 - H318; Acute Tox. 4 - H332
Environmental hazards	Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram





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Signal Word	Danger	
Hazard statements	H226 H242 H302+H332 H304 H314 H317 H411	Flammable liquid and vapour. Heating may cause a fire. Harmful if swallowed or if inhaled May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 P220 P273 P280 P301+P312 P304+P340 P305+P351+P P411+P235 P501	 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Nosmoking. Keep away from amine and cobalt accelerators, acids, alkalis and heavy metalcompounds, combustible materials. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store at temperatures not exceeding (5) - (25)°C. Keep cool. Dispose of contents/container in accordance with national regulations.

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

Contains

Reaction mass of 4-methylpentane-2,2-diyl dihydroperoxide and 4 methylpentane-2-one and peroxybis-4-methylpentane-2,2-diyl dihydroperoxide, Isododecane, hydrogen peroxide solution

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





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Reaction mass of	4-methylpent	tane-2,2-diyl dihyd	roperoxide and 4-methylpe	entane-2-one and peroxybis-4-
methylpentane-2	,2-diyl dihydr	operoxide		%40-50
CAS Number		37206-20-5	EC Number	942-932-9
Classification				
Flam. Liq. 3	H226			
Org. Perox. D	H242			
Acute Tox. 4	H302			
Asp. Tox. 1	H304			
Skin Corr. 1C	H314			
Eye Dam. 1	H318			
Acute Tox. 4	H332			
Skin Sens. 1	H317			
Aquatic Chronic 2	H411			

Isododecane				%20-30
CAS Number		31807-55-3	EC Number	250-816-8
Classification				
Flam. Liq. 3	H226			
Asp. Tox. 1	H304			

Hydrogen Peroxide Solution				%5-10
CAS Number		7722-84-1	EC Number	231-765-0
Classification				
Ox. Liq. 1	H271			
Acute Tox. 4	H302			
Acute Tox. 4	H332			
Skin Corr. 1A	H314			
STOT SE 3	H335			

4-methylpentan-2-one / isobutyl methyl ketone				%5-10
CAS Number		108-10-1	EC Number	203-550-1
Classification				
Flam. Liq. 2	H225			
Eye Irrit. 2	H319			
Acute Tox. 4	H332			
STOT SE 3	H335			
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.				

SECTION 4: First aid measures





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4.1. Description of first aid measures

- General informationEffects may be delayed. Keep affected person under observation. Chemical burns
must be treated by a physician.
- InhalationMove 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 contactRemove affected person from source of contamination. Immediately remove
contaminated clothing. Wash skin thoroughly with soap and water. Get medical
attention promptly if symptoms occur after washing.
- Eye contactRemove affected person from source of contamination. Remove any contact lenses
and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical
attention immediately. Continue to rinse.
- Protection of first aidersFirst 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.

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

- **General information** Move out of dangerous ares. Show this Safety data sheet to the doktor in attendance. Do not leave the victim unattended. Symptoms of poisoning may appear several hours later. Call a physician immediately.
- Inhalation Vapours may cause drowsiness and dizziness.
- IngestionCongestion of the lungs may occur producing severe shortness of breath. May
cause stomach pain or vomiting.
- **Skin contact** May cause serious chemical burns to the skin.
- **Eye contact** May cause blurred vision and serious eye damage.





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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazardsVapours may form explosive mixtures with air. Forms explosive mixtures with air.
May explode when heated or when exposed to flames or sparks. Containers can
burst violently or explode when heated, due to excessive pressure build-up.

Hazardous decomposition products

Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Cool containers exposed to flames with water until well after the fire is out. Fight fire from safe distance or protected location. Move containers from fire area if it can be done without risk. Do not use water jet as an extinguisher, as this will spread the fire. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipmentWear positive-pressure self-contained breathing apparatus (SCBA) and appropriatefor firefightersprotective clothing. Firefighter's clothing conforming to European standard EN469(including helmets, protective boots and gloves) will provide a basic level of
protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Revision date: 06.11.2018 Supersedes date: 01.12.2009



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COMMISSION REGULATION (EU) 2015/830 of 28 May 2015. **Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. 6.2. Environmental precautions **Environmental precautions** Avoid or minimise the creation of any environmental contamination. 6.3. Methods and material for containment and cleaning up Methods for cleaning up Keep combustible materials away from spillage. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage. Do not touch or walk into spilled material. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

6.4. Reference to other sections

Reference to the other	For personal protection, see Section 8. See Section 11 for additional information on
sections	health 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. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable 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 procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Good personal hygiene procedures should be implemented. Mechanical ventilation or local exhaust ventilation may be required. Container must be kept tightly closed when not in use.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from oxidising materials, 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 the following materials: Acids. Alkalis. Keep away from flammable and combustible materials.

7.3. Specific end use(s)





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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 Occupational exposure limits

Name	STD	TWA	- 8 Hrs	STEL -	15 Min	Notes
Hydrogen Peroxide Solution	WEL	1 ppm	1.4 mg/m ³	2 ppm	2.8 mg/m ³	
Isobutyl Methyl Ketone	WEL	50 ppm(Sk)	208 mg/m ³ (Sk)	100 mg/m ³ (Sk)	416 mg/m ³ (Sk)	

WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Wear protective gloves made of the following material: Neoprene. Nitrile rubber. Rubber (natural, latex). 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.
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.



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Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.
If ventilation is inadequate, suitable respiratory protection must be worn. Check that the respirator fits tightly and the filter is changed regularly.
Provide eyewash station and safety shower. 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. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colorless.
Odour	Characteristic.
Relative density	0,89±0,005 gr/cm ³ @20°C
Flash Point	40°C
Solubility(ies)	Partially soluble in water.
Flammability (solid, gas)	Not applicable
Viscosity	4.9 mPa.s (@20°C)
9.2. Other information	
Active Oxygen Content	10,0 - 10,5%
SADT	50°C

SECTION 10: Stability and reactivity

10.1. Reactivity Reactivity	There are no known reactivity hazards associated with this product.
10.2. Chemical stability	
Stability	Stable under normal temperature conditions and recommended use. Avoid: Contact with combustibles, Contact with peroxides. Will decompose at temperatures exceeding 50°C.
10.3. Possibility of hazardous Possibility of hazardous	reactions Will not polymerise.

reactions



Materials to avoid

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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.
10.5. Incompatible materials	

Flammable/combustible material. Strong acids. Strong reducing agents. Bases, alkalis (organic). Organic peroxides/hydroperoxides.

10.6. Hazardous decomposition products

Hazardous decompositionOxides of carbon. Carbon monoxide (CO). Carbon dioxide (CO2). Hydrocarbons.Products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information	The product is not tested.	
Serious eye damage/irritation:	Serious eye damage.	
Skin corrosion/irritation:	Causes burns.	
Respiratory or skin sensitisation: Skin sensitisation	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:	Based on available data the classification criteria are not met.	
Reproductive Toxicity – Development	Based on available data the classification criteria are not met.	
Specific target organ toxicity - single ex STOT - Single exposure	xposure: Based on available data the classification criteria are not met.	
Specific target organ toxicity - repeated exposure:STOT - Repeated exposureBased on available data the classification criteria are not met.		
Aspiration Hazard	May be fatal if swallowed and enters airways.	





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Inhalation	May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Toxic by inhalation.
Ingestion	May cause chemical burns in mouth, oesophagus and stomach. Harmful: may cause lung damage if swallowed.
Skin contact	Irritating to skin. May cause sensitisation by skin contact.
Eye contact	Risk of serious damage to eyes.
Route of entry	Ingestion Inhalation Skin and/or eye contact
Target organs	Respiratory system, lungs
Medical considerations	Skin disorders and allergies.

Toxicological information on ingredients.

Isobutyl methyl ketone (CAS: 108-10-1)

Acute Toxic Dose 1 – LD 50	2080 mg/kg (oral - rat)
Acute Toxic Dose 2 – LD 50	>20.000 mg/kg (dermal - rabbit)
Acute Toxic Cons. – LC 50	23.300 mg/m3 (inh - fare)

2-Pentanone, 4-methyl-, peroxide / Methyl isobutyl Ketone peroxide (CAS: 37206-20-5)

Acute Toxic Dose 1 – LD 501770 mg/kg (oral - rat)Acute Toxic Dose 2 – LD 50>2000 mg/kg (dermal - rabbit)Acute Toxic Cons. – LC 501.5 mg/l ppm/4h (inh-rat)

SECTION 12: Ecological Information

12.1. Toxicity

No data available.

Ecological information on ingredients. Isobutyl methyl ketone (CAS: 108-10-1) LC 50, 96 Hrs, Fish mg/l 505 mg/l isododecane (CAS: 31807-55-3) LC 50, 48 Hrs, Fish mg/l 100 mg/l/ 2-Pentanone, 4-methyl-, peroxide / Methyl isobutyl Ketone peroxide (CAS: 37206-20-5) LC 50, 96 Hrs, Fish mg/l 48 mg/l



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12.2. Persistence and degrada Persistence and degrada	•	
12.3. Bio accumulative potent Bio accumulative potential	tial No data available on bioaccumulation.	
12.4. Mobility in soil Mobility	The product is water soluble and may spread in water systems.	
12.5. Results of PBT and vPvB Results of PBT and vPvB assessment	assessment This product does not contain any substances classified as PBT or vPvB.	
12.6. Other adverse effects Other adverse effects	Not available.	
SECTION 13: Disposal consid	erations	
13.1. Waste treatment metho	ods	
General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered.	
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 infor	mation	
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) UN No. (IMDG) UN No. (ICAO) UN No. (ADN)	3105 3105 3105 3105	





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14.2. UN proper shipping name

Proper Shipping name (ADR/RID)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of 4-methylpentane-2,2-diyl dihydroperoxide and 4-methylpentane-2-one and peroxybis-4-methylpentane-2,2-diyl dihydroperoxide)
Proper Shipping name (IMDG)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of 4-methylpentane-2,2-diyl dihydroperoxide and 4-methylpentane-2-one and peroxybis-4-methylpentane-2,2-diyl dihydroperoxide)
Proper Shipping name (ICAO)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of 4-methylpentane-2,2-diyl dihydroperoxide and 4-methylpentane-2-one and peroxybis-4-methylpentane-2,2-diyl dihydroperoxide)
Proper Shipping name (ADN)	ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of 4-methylpentane-2,2-diyl dihydroperoxide and 4-methylpentane-2-one and peroxybis-4-methylpentane-2,2-diyl dihydroperoxide)

14.3. Transport hazard class(es)

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







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14.6. Special precautions for user

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

EmS	F-J, S-R
ADR transport category	2
Emergency Action Code	2W
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 accordingNot Applicable.to Annex II of MARPOL

SECTION 15: Regulatory information	n
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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.
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).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information	

Key literature references	This SDS is prepared based on the information received from the product owner.
and sources for data	





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Classification procedures according to Regulation (EC) 1272/2008	Acute Tox. 4 - H302; Asp. Tox. 1 - H304; Skin Sens. 1 - H317; Skin Corr. 1C - H314; Eye Dam. 1 - H318; Acute Tox. 4 - H332; Aquatic Chronic 2 - H411: Calculation Method. Flam. Liq. 3 - H226; Org. Perox. D - 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 REACH regulation. Revised Secction 2. and 3.		
Issued By	Melih Babayiğit / CRAD Çevre Risk Analiz Denetim ve Eğitim Hizm. Ltd.Şti. gbf@crad.com.tr +90 216 335 46 00		
Issued Date	01.12.2009		
Revised By	Simge ARIK lab@akpakimya.com +90 282 361 80 99		
Revision date	06.11.2018		
Revision	4.0		
Hazard statements in full	H225	Highly flammable liquid and vapour.	
	H226	Flammable liquid and vapour.	
	H242	Heating may cause a fire.	
	H271	May cause fire or explosion; strong oxidiser.	
	H302	Harmful if swallowed.	
	H304	May be fatal if swallowed and enters airways.	
	H314	Causes severe skin burns and eye damage.	
	H317	May cause an allergic skin reaction.	
	H318	Causes serious eye damage.	
	H319	Causes serious eye irritation.	
	H332	Harmful if inhaled.	
	H335	May cause respiratory irritation.	
	H411	Toxic 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.