

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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 A50 PF FD
Chemical name Methyl Ethyl 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

Manufacturer AKPA KİMYA AMBALAJ SANAYİ VE TİCARET ANONİM ŞİRKETİ
Yenibosna Merkez Mah. Ladin Sok. No:36/70 Kat:12 34197
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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 KİMYA: +90 549 558 40 40

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

Physical hazards Org. Perox. D - H242
Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318
Environmental hazards Not Classified.

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

H242 Heating may cause a fire.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

SAFETY DATA SHEET

AKPEROX A50 PF FD

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

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep away from acids, alkalis, heavy metal compounds, oxidizing material, combustible materials.

P234 Keep only in original container.

P280 Wear protective gloves/protective clothing/ eye protection/ face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P411+P235 Store at temperatures not exceeding (5) - (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

Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide

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

Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide		%20-45	
REACH Reg. No: 01-2119514691-43-0007			
CAS Number	1338-23-4	EC Number	700-954-4
Classification			
Org. Perox. D	H242		
Acute Tox. 4	H302		
Skin Corr. 1B	H314		
Eye Dam. 1	H318		
Acute Tox. 4	H332		

BUTANONE		%1-5	
REACH Reg. No: 01-2119457290-43-0004			
CAS Number	78-93-3	EC Number	201-159-0
Classification			
Flam. Liq. 2	H225		
Eye Irrit. 2	H319		
STOT SE 3	H336		

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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

Hydrogen Peroxide Solution		%1-5	
REACH Reg. No: 01-2119485845-22-0000			
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		

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**

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

Inhalation

Remove affected person from source of contamination. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion

Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.

Skin contact

Remove 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 contact

Remove 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 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.

4.2. Most important symptoms and effects, both acute and delayed**General information**

Move out of dangerous area. Show this Safety data sheet to the doctor in attendance. Do not leave the victim unattended. Symptoms of poisoning may appear several hours later. Call a physician immediately.

Inhalation

Nausea, vomiting. Dizziness.

Ingestion

May cause stomach pain or vomiting. Chemical burns.

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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

Skin contact May cause serious chemical burns to the skin.**Eye contact** May cause severe eye irritation.**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****Suitable extinguishing media** Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.**Unsuitable extinguishing Media** 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 hazards** Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Vapours 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 equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective 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**

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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 sections**

For personal protection, see Section 8. See Section 11 for additional information on 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)

SAFETY DATA SHEET

AKPEROX A50 PF FD

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

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

Ingredients	CAS No.	Value	Control Parameters	Basis	Form of exposure
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide	1338-23-4	C	0.2 ppm	ACGIH	
			0.2 ppm 1.5 mg/m ³	NIOSH REL	
			0.7 ppm 5 mg/m ³	OSHA P0	
			0.2 ppm 1.5 mg/m ³	CAL PEL	
Methyl Ethyl Ketone	78-93-3	TWA	200 ppm	ACGIH	
		MPC-TWA	200 mg/m ³	RU OEL	Vapour and/or gas
		STEL	300 ppm	ACGIH	
		MPC-STEL	400 mg/m ³	RU OEL	Vapour and/or gas
		TWA	200 ppm 590 mg/m ³	NIOSH REL OSHA Z-1 OSHA P0 CAL PEL	
		ST	300 ppm 885 mg/m ³	NIOSH REL OSHA P0 CAL PEL	
Hydrogen peroxide	7722-84-1	TWA	1 ppm	ACGIH	
		PEL	1 ppm 1,4 mg/m ³	OSHA Z-1	
		STEL	2 ppm 2,8 mg/m ³	ACGIH	

Decomposition products	CAS No.	Value	Control Parameters	Basis	Form of exposure
Formic acid	64-18-6	TWA	5 ppm	ACGIH	
		STEL	10 ppm	ACGIH	
		TWA	5 ppm 9 mg/m ³	NIOSH REL OSHA Z-1 OSHA P0	

SAFETY DATA SHEET

AKPEROX A50 PF FD

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

				CAL PEL	
		STEL	10 ppm 19 mg/m ³	CAL PEL	
		MPC-STEL	1 mg/m ³	RU OEL	Vapour and/or gas
Acetic acid	64-19-7	TWA	10 ppm	ACGIH	
		STEL	15 ppm	ACGIH	
		TWA	10 ppm 25 mg/m ³	NIOSH REL OSHA Z-1 OSHA P0	
		ST	15 ppm 37 mg/m ³	NIOSH REL	
		PEL	10 ppm 25 mg/m ³	CAL PEL	
		STEL	15 ppm 37 mg/m ³	CAL PEL	
		C	40 ppm	CAL PEL	
		MPC-STEL	5 mg/m ³	RU OEL	Vapour and/or gas
Propionic acid	79-09-4	TWA	10 ppm	ACGIH	
		TWA	10 ppm 30 mg/m ³	NIOSH REL	
		ST	15 ppm 45 mg/m ³	NIOSH REL OSHA P0	
		PEL	10 ppm 30 mg/m ³	CAL PEL	
		MPC-STEL	20 mg/m ³	RU OEL	Vapour and/or gas

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.

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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

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.
Hygiene measures	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.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Check that the respirator fits tightly and the filter is changed regularly.
Environmental exposure controls	Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties	
Appearance	Clear liquid.
Colour	Red.
Odour	Characteristic.
Density	1,06 ± 0,005 gr/cm ³ @20°C
Solubility(ies)	Partially soluble in water.
Flammability (solid, gas)	Not applicable.
Viscosity	No data available.
9.2. Other information	
Active Oxygen Content	8,9 - 9,1 %
SADT	60°C

SECTION 10: Stability and reactivity

10.1. Reactivity	
Reactivity	There are no known reactivity hazards associated with this product.

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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

10.2. Chemical stability**Stability**

Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions**Possibility of hazardous reactions**

Not available.

10.4. Conditions to avoid**Conditions to avoid**

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials**Materials to avoid**

Strong alkalis. Strong acids. Strong reducing agents. Strong oxidising agents. Some metals.

10.6. Hazardous decomposition products**Hazardous decomposition Products**Oxides of carbon. Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrocarbons. Formic acid, acetic acid, propionic acid, methyl ethyl ketone.**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Product Information****Toxicological information****Acute oral toxicity**

LD50 Oral 1070 mg/kg Species: Rat

Acute inhalation toxicity

LC50 (Rat): 1,5 mg/l Exposure time: 4h

Acute dermal toxicity

LD50: 4000 mg/kg Species: Rabbit

Serious eye damage/irritation:

Corrosivity to eyes is assumed.

Skin corrosion/irritation:

Causes burns.

Respiratory or skin sensitisation:**Respiratory sensitisation**

Based on available data the classification criteria are not met.

Skin sensitisation

Based on available data the classification criteria are not met.

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

Based on available data the classification criteria are not met.

Reproductive Toxicity –

Based on available data the classification criteria are not met.

Development**Specific target organ toxicity - single exposure:****STOT - Single exposure**

Based on available data the classification criteria are not met.

SAFETY DATA SHEET

AKPEROX A50 PF FD

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

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

Ingestion Harmful if swallowed. May cause burns in mucous membranes, throat, oesophagus and stomach.

Skin contact Causes burns. Harmful in contact with skin. May cause sensitisation or allergic reactions in sensitive individuals.

Eye contact Causes burns.

Route of entry Ingestion Inhalation Skin and/or eye contact

Target organs Respiratory system, lungs

Medical considerations Skin disorders and allergies.

Toxicology Data For The Ingredients:

Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide

Acute oral toxicity	LD50: 1017 mg/kg	Species: Rat
Acute dermal toxicity	LD50: 4000 mg/kg	Species: Rat
Acute inhalation toxicity	LC50 (Rat): 17 mg/l	Exposure time: 4h

Butanone

Acute oral toxicity	LD50: 2,737 mg/kg	Species: Rat
Acute dermal toxicity	LD50: 6,480 mg/kg	Species: Rabbit

SECTION 12: Ecological Information

12.1. Toxicity

Ecological information on ingredients.

Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide

Toxicity to fish	LC50, 96h: 44,2 mg/l
Toxicity to algae	ErC50, 72h: 5,6 mg/l/l
Toxicity to bacteria	EC10, 0,5h: 5,6 mg/l

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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

Toxicity to daphnia and other aquatic invertebrates 39 mg/l, 48h**Butanone**
Toxicity to fish LC50, 96h: 3.220 mg/l**12.2. Persistence and degradability****Persistence and degradability**

The product is readily biodegradable.

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.

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 available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****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 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

SAFETY DATA SHEET

AKPEROX A50 PF FD

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

UN No. (ADR/RID)	3105
UN No. (IMDG)	3105
UN No. (ICAO)	3105
UN No. (ADN)	3105

14.2. UN proper shipping name

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

No.

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)	-

SAFETY DATA SHEET**AKPEROX A50 PF FD**

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

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.

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 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

Aqute Tox. 4 - H302; Skin Corr. 1B - H314; Eye Dam. 1 - H318; Calculation Method. Org. Perox. D - H242: Expert Judgement.

Training advice

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

Revision comments

Added REACH Numbers.

Issued By

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Revision date

25.03.2019

SAFETY DATA SHEET

AKPEROX A50 PF FD

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

Revision	1.0
Hazard statements in full	
H225	Highly flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
Other abbreviations	
ACGIH	USA, ACGIH Thershold Limit Values (TLV)
CAL PEL	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
NIOSH REL	USA NIOSH Recommended Exposure Limits
OSHA P0	USA OSHA – TABLE Z-1 Limits for air contaminants – 1910.1000
OSHA Z-1	Usa Occupational Exposure Limits (OSHA) – Table Z-1 Limits for air contaminants
ACGIH/TWA	8-hour, time-weighted average
ACGIH/STEL	Short-term exposure limit
ACGIH/C	Ceiling limit
CAL PEL/STEL	Short term exposure limit
CAL PEL/PEL	Permissible exposure limit
CAL PEL/C	Ceiling
NIOSH REL/TWA	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL/ST	STEL-15minute TWA exposure that should not be exceeded at any time during a workday
NIOSH REL/C	Celing value not be exceeded at any time
OSHA P0/TWA	8-hour time weighted average
OSHA P0/STEL	Short-term exposure limit
OSHA P0/C	Ceiling limit
OSHA Z-1/TWA	8-hour time weighted average
RU OEL / MPC-STEL	Russia. Maximum Permissible Concentration – Short Term Exposure
RU OEL / MPC-TWA	Russia. Maximum Permissible Concentration – Time Weighted Average

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.