

SAFETY DATA SHEET

(according to Regulation (EC) No. 1907/2006, as amended by Regulation (EU) 453/2010)



Business name:

PURON K

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SECTION 1: Identification of substance/mixture and company/enterprise

1.1	Product identifier	
	Business name of mixture:	PURON K
1.2	Applicable designated uses of substance or mixture and non-recommended uses	
	Recommended purpose of use:	Anti-incrustation and anti-calc agent.
	Non-recommended uses:	All other uses than those specifically recommended.
1.3	Detailed data on supplier of Safety Data Sheet	
	Name/business name:	MPD plus spol. s r. o.
	Registered seat of company/enterprise:	Nábřeží Dr. Beneše 2307, 269 01 Rakovník
	Corporate number:	475 496 37
	Telephone:	+ 420 313 513 961
	Responsible person:	Ing. Zdeněk Fišer fiser.z@mpd.cz
1.4	Telephone number for urgent situations	
	Emergency telephone number for entire CR:	Non-stop 224919293 or 22491 5402 or 22491 4575.
	Address:	Toxicological Information Centre (TIS), Na Bojišti 1, 128 08 Prague 2, Occupational Diseases Teaching Hospital.

SECTION 2: Identification of danger

2.1	Classification of substance or mixture	
2.1.1	Classification according to Regulation (EC) No. 1272/2008 (CLP):	
	Skin Corr 1B, H314;	
2.1.2	Complete wording of sentences on safety and additional sentences on hazards of EUH: see SECTION 16	
2.2	Label elements	According to Regulation (EC) No. 1272/2008 (CLP):
	Safety warning symbols	
	Signal word:	Danger.
	Standard sentences on hazards	
	H314	Causes severe skin burns and eye damage.
	Instructions for safe handling	
	P102	Keep out of reach of children.
	P264	After handling, thoroughly wash hands, face and uncovered parts of the skin.
	P280	Use protective gloves/ protective clothing/protective footwear/protective goggles/face shield.
	P301+P330+P331	IF INGESTED: Rinse out mouth. DO NOT INDUCE vomiting.
	P303+P361+P353	UPON CONTACT WITH SKIN (or hair): All contaminated parts of clothing must be immediately removed. Rinse the skin with water or shower.
	P305+P351+P338	UPON CONTACT WITH EYE(S) Carefully rinse with water for several minutes. Remove contact lenses if worn and if they can be easily removed. Continue to rinse.

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	P273	Prevent release into the environment
	P501	Remove content/packaging according to legal regulations.
	P312	If you do not feel well, contact a physician.
Additional information		
Sentences (EUH) on danger	Not used.	
Composition according to:		
Regulation (EC) No. 1272/2008	Mixture contains: > 30.0% phosphoric acid.	
Regulation (EC) No. 648/2004	Mixture contains: 5,0 - 15,0 % anionic surfactant	
of Act No. 120/2002 Coll.	The mixture is not a biocidal preparation.	
2.3	Further danger	
	Irritating and corrosive to the skin and mucous membranes. The effects on the eyes may lead to blindness or permanent corneal damage. In an alkaline environment, toxic gases may form causing pulmonary edema. Upon ingestion, the concentrated preparation may cause serious damage to the digestive tract. The preparation contains no substances classified as PBT and vPvB. The mixture is not classified according to Regulation (EC) No. 1272/2008 as hazardous to the environment and toxic to aquatic organisms.	

SECTION 3: Composition/information on ingredients

3.2	Mixtures				
	Chemical name of composition	Contents [% hm.]	Identification numbers		Classification according to Regulation (EC) No. 1272/2008 (CLP):
	Phosphoric acid[1]	> 30	Registration Index CAS EC	01-2119485924-24 015-011-00-6 7664-38-2 231-633-2	Skin Corr. 1B, H314 (c; Skin Corr. 1B; H314: C ≥ 25% Skin Irrit. 2; H315: 10% ≤ C < 25% Eye Irrit. 2; H319: 10% ≤ C < 25%
	Sulfonic acid	5 - 15	Registration Index CAS EC	01-2119490234-40 - 85536-14-7 287-494-3	Acute Tox. 4, H302; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Chronic 3, H412.

Full wording of H-sentences can be found in sec. 16.

^[1] Exposure limits have been determined for the substance according to Government Degree No. 361/2007 Coll. stated in Sec 8 of this safety data sheet.

c = specific concentration limit - appendix VI of Regulation (EC) No. 1272/2008.

d = specific concentration limit - listed in registration documentation.

M = multiplication factor.

SECTION 4: First aid instructions

4.1	Description of first aid	
	General instructions:	If unconscious, place the injured person into a stabilized position on his/her side with head slightly tilted back, do not give anything by mouth, prevent hypothermia and seek medical assistance. If serious health ailments appear, in case of doubt or in the event of unconsciousness, seek medical assistance and provide them with information from this Safety Data Sheet.
	Upon inhaling:	Move the injured person to fresh air and ensure physical and mental rest.

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		Prevent hypothermia. Upon stoppage of breathing or irregular breathing, start artificial breathing from lungs to lungs. If irritation or other overall signs persist, seek medical assistance.
	Upon contact with the skin:	Immediately remove all contaminated clothing. Clean affected parts of the skin if possible with warm water and soap. Treat skin burns aseptically. Upon persistent irritation or signs of burns, seek medical assistance.
	Upon contact with eye(s):	Flush eyes with a large amount of warm (if possible) running water for at least 15 minute with lids forced open and seek medical assistance.
	If ingested:	Place the injured persons in a position of rest. Rinse out the mouth with water (only if the injured person is conscious), never induce vomiting. Immediately seek medical assistance and show this label.
	Further data:	The main local signs are burns. Special means are not indicated. Treatment is symptomatic
4.2	Most important acute and delayed symptoms and effects	
	These depend on the time of exposure, manifestation: burning, pang (stabbing pain). A state of shock is possible.	
4.3	Instruction concerning immediate medical assistance and special examination	
	Listed in sections 4.1 and 4.2.	

SECTION 5: Measures for extinguishing a fire

5.1	Extinguishing agents	
	Appropriate extinguishing agents:	The mixture is non-flammable. The extinguishing method is based on the nature of the fire in the surroundings.
	Inappropriate extinguishing agents:	Not determined.
5.2	Special hazards arising from the substance or mixture	In the event of a fire, toxic gases could be released. Inhaling fumes from a fire (ex. carbon monoxide, carbon dioxide) may cause serious health damage.
5.3	Instructions for fire-fighters	In the event of fire, use appropriate breathing protection (insulation device) or full-body protection.

SECTION 6: Measures in the event of random leak

6.1	Measures for protecting persons, protective means and emergency procedures	
	Use personal protective equipment. Ventilate. Proceed according to instructions contained in sections 7 and 8.	
6.2	Environmental protection measures	
	Prevent major leakage of concentrate into the environment, mainly into watercourses.	
6.3	Methods and material for limiting leakage and for cleaning	
	Mechanically remove large amounts, Sprinkle absorbent material (sand, diatomaceous earth, special absorbents), deposit in appropriate container and liquidate it as hazardous waste. Flush just a small amount with a large amount of water.	
6.4	Link to other departments	
	Liquidation as hazardous waste (Sec 13).	

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SECTION 7: Handling and storage	
7.1	Instructions for safe handling
	Prevent contact with skin and eyes. Use personal protective equipment according to Sec 8 and abide by work regulations. Ensure reasonable ventilation of the working environment. Keep the work area clean. Upon using a mixture, proceed only according to the instructions stated on the product label.
7.2	Conditions for safe storage of substances and mixtures including incompatible substances and mixtures
	Store in original tightly closed containers, kept standing up vertically to prevent spills. Store dry, in well ventilated rooms at temperatures of + 5 to + 25 °C. Protect from heat, direct sunlight and weather conditions. Uphold instructions listed on the product label. Keep separate from foods, drinks and feeds.
7.3.	Specific final use(s)
	Anti-incrustation and anti-calc agent.

SECTION 8: Limitation of exposure / personal protective equipment				
8.1	Control parameters			
8.1.1	Exposure limits according to Government Decree No. 361/2007 Coll., as amended			
	Chemical name	CAS	PEL (mg.m-3)	NPK-P (mg.m-3)
	Phosphoric acid	7664-38-2	1	2
	When using according to the manual, the need for inspecting limit parameters.			
8.1.2	Biological exposure limits according to Degree No. 432/2003 Coll.			
	Not determined			
8.1.3	Further limits - values DNEL and PNEC			
Mixture				
	DNEL	not available		
	PNEC	not available		
Substances				
Name of substance	C10-13 Sulfonic acid			
Number CAS	85536-14-7			
DNEL	employees			
Path of exposure	Short-term exposure, local effects	Short-term exposure, systemic effects	Long-term exposure, local effects	Long-term exposure, systemic effects
Oral (mg/kg/day)	not available	not available	not available	not available
Inhalation (mg/m3)	not available	not available	not available	12.0
Dermal (mg/kg/day)	not available	not available	not available	170.0
DNEL	consumer			
Path of exposure	Short-term exposure, local effects	Short-term exposure, systemic effects	Long-term exposure, local effects	Long-term exposure, systemic effects
Oral (mg/kg/day)	not available	not available	not available	0.85
Inhalation (mg/m3)	not available	not available	3.0	3.0
Dermal (mg/kg/day)	not available	not available	not available	85.0
PNEC				
drinking water (mg/l)				0.287
sea water (mg/l)				0.0287
sporadic release (mg/l)				0.0167

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sediment potable water (mg/kg/day)	0.287			
sediment sea water (mg/kg/day)	0.287			
soil (mg/kg/day)	35.0			
waste water treatment (mg/l)	3.43			
Name of substance Phosphoric acid				
Number CAS	7664-38-2			
DNEL	employees			
Path of exposure	Short-term exposure, local effects	Short-term exposure, systemic effects	Long-term exposure, local effects	Long-term exposure, systemic effects
Oral (mg/kg/day)	not available	not available	not available	not available
Inhalation (mg/m3)	not available	not available	2.92	not available
Dermal (mg/kg/day)	not available	not available	not available	not available
DNEL	consumer			
Path of exposure	Short-term exposure, local effects	Short-term exposure, systemic effects	Long-term exposure, local effects	Long-term exposure, systemic effects
Oral (mg/kg/day)	not available	not available	not available	not available
Inhalation (mg/m3)	not available	not available	0.73	not available,
Dermal (mg/kg/day)	not available	not available	not available	not available
PNEC				
drinking water (mg/l)	not available			
sea water (mg/l)	not available			
sporadic release (mg/l)	not available			
sediment potable water (mg/kg/day)	not available			
sediment sea water (mg/kg/day)	not available			
soil (mg/kg/day)	not available			
waste water treatment (mg/l)	not available			
8.2	Limiting exposure			
8.2.1.	Appropriate technical controls			
	<p>Ventilation, exhaust of steam sources. Ensure and check the leak-tightness of equipment. Ensure adequate ventilation. When spraying prevent the formation of aerosols. Uphold ordinary preventative measures when handling chemicals. During work, do not eat, drink or smoke.</p> <p>After work, wash hands with hot water and soap and treat with a restoring cream. Limit contact of the mixture and substances with eyes and skin.</p> <p>The group of preventative and protective measures is listed in Sec 7 of this safety sheet.</p>			
	Protection of eyes and face:	Protective goggles, face shield (mainly when handling concentrates) according to ČSN EN 166		
	Skin protection:	hand/arm protection	Gloves (e.g. butyl rubber, polyvinyl chloride 0.5 mm) according to ČSN EN 374.	
		other protection	Protective work clothes, work apron according to ČSN EN 14605+A1.	
	Protection of breathing passages:	Not necessary. If necessary selection according to ČSN EN 14387+A1.		
	Thermal hazard	Not occurring when using according to the manual.		

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8.2.3	Limiting exposure to the environment
	Do not pour into water, into soil and do not pour large amounts of the concentrate into the sewer system. Clean packages of contamination during work, store packages in stable fashion, prevent overturning of an unsecured container.

SECTION 9: Physical and chemical properties

9.1	Information on basic physical and chemical properties	
	Appearance	Fluid, yellow
	Smell	Specifically smells of used raw materials.
	Threshold value of smell	Not determined.
	pH	Max. 3; 20 °C, 1% solution.
	Melting point	< 0 °C.
	Boiling point / its limit	100 °C.
	Flash point	Not applicable/dissipates.
	Evaporation speed	Not determined.
	Combustibility	The mixture is not combustible.
	Explosion limits	Not applicable/dissipates.
	Steam pressure	Not determined.
	Steam density	Not determined.
	Relative density	1,35 g.cm-3, 20 °C.
	Solubility	Infinitely water soluble, 20 °C.
	Partition coefficient n-octanol / water	Not determined.
	Auto-ignition temperature	Not applicable/dissipates.
	Decomposition temperature	Not determined.
	Viscosity	Not determined.
	Explosive properties	Not applicable/dissipates.
	Oxidation properties	It has no oxidation properties
9.2	Further information	Not listed

SECTION 10: Stability and reactivity

10.1	Reactivity
	Acidic mixture, reacts with strong bases and with mixtures based on active chlorine
10.2	Chemical stability
	Upon upholding conditions for storage and handling, the mixture is stable.
10.3.	Possibility of dangerous reactions
	Mainly with strong bases (exothermic reaction).
10.4	Conditions necessary to prevent.
	Temperature over 25 °C, direct solar and thermal radiation.
10.5	Incompatible materials
	Cannot come into contact with strong bases, mainly with disinfection agents based on active chlorine.
10.6.	Hazardous decomposition products
	Only upon fire of oxides of carbon and nitrogen.

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SECTION 11: Toxicology information

11.1	Information on toxicological effects	
	Acute toxicity of components of the mixture	Chemical name Acute toxicity
		Phosphoric acid LD50, oral, 2600 mg.kg-1 LD50, dermal, 2740 mg.kg-1.
		C10-13 Sulfonic acid LD50, oral, 1470 mg.kg-1 LD50, dermal, >2000 mg.kg-1.
	Acute toxicity of the mixture	Estimated value of ATE mixture based on the assessment of components is: - orally > 2000 mg.kg-1 - dermal > 2000 mg.kg-1 - by inhalation > 5 mg.l-1.
	Irritation	Irritates eyes, mucous membranes and skin. Upon contact with the eyes permanent corneal damage may occur. Inhaling the aerosol could harm the upper respiratory tract. Ingestion may damage the lining of the oesophagus and the stomach. Sensitization is unlikely to occur.
	Corrosivity	Corrosive effects appear within a short period. Protect vision, the effects are irreversible!
	Sensitization	Based on available data, the criteria for classification have not been met.
	Toxicity of repeated dose	Based on available data, the criteria for classification have not been met.
	Carcinogenicity	Based on available data, the criteria for classification have not been met.
	Mutagenicity	Based on available data, the criteria for classification have not been met.
	Toxicity for reproduction	Based on available data, the criteria for classification have not been met.
	Classification of mixture	The mixture was classified and assessed in accordance with procedures according to Regulation (EC) No. 1272/2008. Not tested on animals.

SECTION 12: Ecological information

12.1	Toxicity	
	Toxicity of components of the mixture	Chemical name Tested parameter: acute toxicity (AT), chronic toxicity (CHT)
		C10-13 Sulfonic acid AT, fish: LC50, 96 hod: 1,67 mg.l-1. AT invertebrates: LC50, Daphnia sp. 48 hod: 2,9 mg.l-1.
		Phosphoric acid AT; LC50 96 hod., fish: 138 mg.l-1. AT; EC50 48 hod., daphnia: >100 mg.l-1
	Toxicity of the mixture	Based on the summation method according to Regulation (EC) No. 1272/2008, the mixture is not classified as hazardous for an aquatic environment. Tests on aquatic/terrestrial organisms are not available for the mixture. Threat of sources of potable water can only occur upon leak of a large quantity of the product into the soil or waterways. The product may be released after application into the sewerage system.
12.2	Persistence and dissolubility	Surface active substances comply with the requirements of (EC) No. 648/2004. The preparation breaks down well biologically. The present phosphoric acid may increase eutrophication of surface waters.
12.3	Bioaccumulation potential	In regards to the composition, amassing in the environment is not probable.
12.4	Mobility in the soil	Not measurec, possible to expect high mobility
12.5	Results PBT and vPvB	The mixture contains no such identified materials.
12.6	Other unfavourable effects	Not listed

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SECTION 13: Instructions for removal		
13.1	Waste management methods	
	Removal of mixtures	Unused remains and preparation captured upon leakage into absorptive materials are liquidated as hazardous waste in accordance with the Waste Act (N 200 129). After mechanical removal of the preparation, the contaminated surface is flushed using a large amount of water.
	Removal of contaminated packaging	Packaging from the manufacturer must be emptied as much as possible. After cleaning, it is again possible to use, recycle or liquidate in accordance with local regulations e.g. into sorted waste. CZ: for packaging, a legal fee is paid for liquidation of packaging waste

SECTION 14: Information for transport		
14.1	UN number	UN 3264
14.2	Due name of UN for consignment	UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, J.N. (Phosphoric acid).
14.3	Class/classes of safety for transport	8
14.4	Packaging group	III
	Warning label (Kemler)	80
	Safety sign	
14.5	Hazardous to the environment	No.
14.6	Special safety measures for user	Not listed.
14.7	Bulk transport according to appendix II MARPOL 73/78 and IBC regulation	Transport not expected.

SECTION 15: Information on regulations		
15.1	Decrees concerning safety, health and the environment/specific legal regulations concerning the substance or mixture	CZ: Act No. 102/2001 Coll. on General Product Safety, as amended. Act on Packaging No. 477/2001 Coll. and related legal regulations, as amended. Act No. 185/2001 Coll. on Waste, as amended Sec 44 and Act No. 258/2000 Coll. Section 8 Para. (6); (8); (9); and (10). Government Decree No. 361/2007 Coll. as amended Decree No. 423/2003 Coll. EU: Regulation 1907/2006/EC (REACH), as amended, EU Commission Regulation 453/2010. Regulation 1272/2008 EC (CLP), as amended. Regulation 648/2004/EC on detergents.
		Directive 98/24 EC.
15.2	Assessing chemical safety	Not elaborated.

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SECTION 16: Further information

a. Changes made in the Safety Data Sheet:

First version elaborated according to Regulation of European Parliament and of the Council No. 453/2010 and according to Regulation of European Parliament and of the Council No. 1272/2008.

b. Key or legend to abbreviations

Aquatic Chronic 3	Long-term hazard for aquatic environment, category 3.
Acute Tox. 4	Acute toxicity, category 4.
Eye Dam 1	Serious damage to eyes, category 1
Eye Irrit. 2	Serious irritation to eyes, category 2
Skin Corr 1B	Skin corrosion, category 1B.
Skin Corr 1C	Skin corrosion, category 1C.
Skin Irrit.2	Skin irritation, category 2.
DNEL	Derived level, at which no adverse affects occur.
PNEC	Estimate of concentration, at which no adverse affects occur.
UN = OSN	United Nations.

c. Important links to literature and data resources:

This Safety Data Sheet is compiled based on safety data sheets and technical information of manufacturers of raw materials and is enhanced by legal requirements

d. Classification of mixture according to Regulation (EC) No. 1272/2008

Skin Corr. 1B.	Calculation method
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e. List of applicable standard sentences on hazards:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Irritates skin.
H318	Causes serious damage to the eyes.
H319	Causes serious irritation to the eyes.
H412	Hazardous for aquatic organisms, with long-term effects.

f. Instructions for training:

For application of the preparation, no further training is necessary. The instructions on the package label and this Safety Data Sheet form a sufficient source for its application.

g. Further data

The aforementioned information expresses the current status of our knowledge, and does not represent any assurance of properties, and is only valid in affiliation with normal handling under normal conditions and with specific data in the technical manual. The product should not be used for any other purpose than for which it is designed (Section 1.2). For any other use of this product, or in combination with other products or procedures, the user alone is responsible.