

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: Manophos
 Product Number: 0938
 Product Type: Mixture
 Use of mixture: Phosphatizer

For professional use only.

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

Identified Uses

Manual phosphatizer – manual methods.

Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

CEBE Reinigungsschemie GmbH
 Ruhrstrasse 47
 22761 Hamburg
 Germany

Telephone: +49.40.851 82 -0 Telefax: +49.40.851 82 29 Email: info@cebechem.com
 Responsible/issuing person: Dr. Jan M. Reimers

1.4 Emergency telephone number

Emergency telephone number: +49.40.851 82 -0 (Mo. – Th. 8:00 to 16:45, Fr. 8:00 to 15:30)

2. Hazards identification

2.1 Classification of the substance or mixture

Product definition: mixture

Classification according to Regulation (EU) No. 1272/2008 (CLP)

Hazard class and hazard category	Hazard statements
Skin Corr. 1B	H314

See section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Labelling according to Regulation (EU) No. 1272/2008

Hazard symbol(s):



Signal Word: Danger.

Hazard Statements: H314 Causes severe skin burns and eye damage.

Precautionary Statements:

Prevention:	P260 P264 P280	Do not breathe vapours/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Reaction:	P303+P361+P353 P305+P351+P338 P301+P330+P331 P310 P304+P340	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: rinse mouth. Do NOT induce Vomiting. Immediately call a POISON CENTER or doctor/physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Storage:	P405	Store locked up.
Disposal:	None.	

Additional labelling elements: None.

2.3 Other hazards

Other hazards that do not lead to a classification: Not applicable.

3. Composition/information on ingredients**3.2 Mixtures**

Hazardous Components	Identifiers	Wt.-%	Classification (EU) 1272/2008
Phosphoric acid	EG: 231-633-2 CAS: 7664-38-2	20 - 40%	Skin Corr. 1B, H314 Met. Corr. 1, H290
See section 16 for the full wording of the above mentioned H-statements.			

At the time of creation of this data sheet no further ingredients were classified as hazardous to health or environment or were contained in concentrations that did not mandate their mention in this section.

4. First aid measures**4.1 Description of first aid measures**

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe.

Inhalation: Get medical attention immediately. Remove victim to fresh air and keep at rest in a position

comfortable for breathing. If it is suspected that fumes are still present, the rescuer must wear an appropriate mask or self-contained breathing apparatus. In the absence of or irregular breathing, or respiratory arrest occurs artificial respiration by trained personnel or provide oxygen. For the first person providing aid it can be dangerous to give mouth-to-mouth resuscitation. If unconscious place in recovery position and seek immediate medical attention. Maintain an open airway. Loosen tight clothing (eg. a collar, tie, belt, or waistband) loosen. In case of inhalation of combustion products, symptoms may be delayed.

Skin contact: Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before you take them off or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Wash out mouth with water. Remove denture prosthesis if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. Should vomiting occur, keep head low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything to an unconscious person by mouth. If unconscious, place in recovery position and seek immediate medical attention. Maintain an open airway. Loosen tight clothing (eg. a collar, tie, belt or waistband).

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer must wear an appropriate mask or self-contained breathing apparatus. For the first person providing aid it can be dangerous to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before you take them off or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Corrosive to eyes.

Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory tract. Exposure to decomposition products may cause a health hazard. After exposure serious effects may be delayed.

Skin contact: Corrosive to the skin.

Ingestion: May cause burns to mouth, throat and stomach.

Signs / symptoms of overexposure

Eye contact: Adverse symptoms may include pain, tearing, redness.

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following: pain or irritation, redness. Blistering may occur.

Ingestion: Adverse symptoms may include: stomach pain.

4.3 Indication of any immediate medical attention and special treatment needed

Indications for the physician: Treat symptomatically. If larger amounts have been swallowed or inhaled consult specialist for poisoning.

Special treatment: No special treatment.

5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, phosphorous oxides.

5.3 Advice for firefighters

Special precautions for fire-fighters: In case of fire the scene cordon immediately removing all persons from the danger area. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if safe to do so. Spray fire-exposed containers with water to cool.

Special protective equipment for firefighters: Fire fighters should wear proper protective equipment.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For persons that are not emergency technicians: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Put on appropriate personal protective equipment.

For first aid personnel in case of emergency: If protective equipment/clothing is needed in case of accidental release, Section 8 should be consulted for appropriate and inappropriate materials. See section 8 for further information on hygiene measures.

6.2 Environmental precautions

Avoid the proliferation and dispersal of spilled material and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product was caused by environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill: Dilute with plenty of water. Absorb with an inert material and place in an appropriate waste disposal.

Large spill: avoid entry into sewers, water courses, basements, or confined areas. Collect spilt material using non-flammable absorption agent (eg. sand, earth, vermiculite or diatomaceous earth) and hand it in for disposal according to local regulations in an appropriate container (see section 13).

6.4 Reference to other sections

See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

7. Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any exposure scenario or when exposure scenarios on the available application-specific information.

7.1 Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or on clothing. Do not breathe vapor or mist. Do not ingest. If the material is a risk for the respiratory system in normal use, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative container, which was made from a compatible material. Keep the container tightly closed when not in use. Keep away from alkalis. Empty containers retain product

residue and can be dangerous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. After use or contact with the substance immediately wash hands and face especially before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 0 to 40°C (32 to 104°F). Store in accordance with local regulations. Keep only in original container. Protect from direct sunlight. Store in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and do not store with food and drink. Hold container tightly closed and sealed until ready to use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate container to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations: No information available.

8. Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any exposure scenario or when exposure scenarios on the available application-specific information.

8.1 Control parameters

Occupational exposure limit values

Name of substance	Exposure limit value
Phosphoric acid	WEL 2mg/m ³ EU ELV (STEL) 2 mg/m ³ EU ELV (TWA) 1 mg/m ³

Recommended monitoring procedures

If this product contains ingredients with exposure limits, monitoring procedures are personal, (related to workplace) or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and / or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect concentrations

No Derived No Effect Levels (DNEL) – values available.

Predicted effect concentrations

No Predicted No Effect Concentrations (PNEC) available.

8.2 Limitation and monitoring of exposure

Appropriate technical controls: No special ventilation requirements. Good general ventilation should be

sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective measures

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products and at the end of the working day as well as before eating, smoking, and using the toilet. Use appropriate techniques to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the work area.

Eye protection / face protection (EN 166): Goggles, chemical goggles or full-face shield.

Hand protection (EN 374): Protective gloves made of nitrile, for example, Camatril® 730 from KCL GmbH (see section 16). Penetration time > 8 hours.

Skin protection (EN 14605): Before handling this product the personal protective equipment should be selected on the basis of the task and the associated risks to be carried out and approved by a specialist.

Other skin protection: Appropriate footwear and any additional skin protection measures based on the task being performed and the risks involved and should be approved by a specialist.

Respiratory protection (EN 143, 14387): Under normal and intended conditions of product use no respirator is required. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators, eg. Gas filter, filter type E, possibly in combination with a particulate filter class P2.

Thermal hazards: Not applicable.

Delimitation and monitoring of the environmental exposition: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- a) **Appearance:** **Form:** liquid **Color:** colorless
- b) **Odor:** characteristic smell
- c) **Odor threshold:** Not applicable and/or not determined for this mixture
- d) **pH:** 1.0 ± 0.5 at 20°C
- e) **Freezing/melting point:** Not applicable and/or not determined for this mixture
- f) **Boiling point/boiling range:** Not applicable and/or not determined for this mixture
- g) **Flash point:** Not applicable and/or not determined for this mixture
- h) **Evaporation rate:** Not applicable and/or not determined for this mixture
- i) **Flammability (solid, gas):** Not applicable and/or not determined for this mixture
- j) **Upper/lower explosion limit:** Not applicable and/or not determined for this mixture
- k) **Vapor pressure:** Not applicable and/or not determined for this mixture

- l) **Relative vapor density:** Not applicable and/or not determined for this mixture
- m) **Density:** 1.350 – 1.370 g/cm³
- n) **Solubility** easily soluble in the following substances: water
- o) **partition coefficient:** n-octanol/water: Not applicable and/or not determined for this mixture
- p) **Ignition temperature:** Not applicable and/or not determined for this mixture
- q) **Thermal decomposition:** Not applicable and/or not determined for this mixture
- r) **Viscosity, dynamic:** Not applicable and/or not determined for this mixture
- s) **Explosive properties:** Not applicable and/or not determined for this mixture
- t) **Oxidizing properties:** Not applicable and/or not determined for this mixture

9.2 Other information

No further information available.

10. Stability and reactivity**10.1 Reactivity**

With alkalis vigorous reaction takes place. Metals should be avoided (risk of corrosion).

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Dangerous reactions will not occur under normal storage conditions and under normal use.

10.4 Conditions to avoid

No specific data.

10.5 Incompatible materials

Extremely reactive or incompatible with the following materials: alkalis.

Reactive or incompatible with the following materials: oxidizing materials.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Evolution of hydrogen on contact with base metals (eg, zinc, iron, aluminum).

11. Toxicological information**11.1 Information on toxicological effects****a) acute toxicity:**

Name of Substance	Result	Species	Dose	Exposition
Phosphoric acid	LD ₅₀ Dermal	Rabbit	2,740 mg/kg	-

Conclusion/Summary: Not determined for this mixture.

b) Irritation to skin; c) Irritation to eyes; d) Sensitisation

Name of Substance	Result	Species	Points	Exposition	Observation
Phosphoric acid	Skin: Caustic effect	Rabbit	-	-	-
	Eyes: corrosive effect	Rabbit	-	-	-
	Sensitization: No sensitizing effect	-	-	-	-

Conclusion / Summary: Causes burns.

e) Germ cell mutagenicity:

Conclusion / Summary: No known significant effects or critical hazards.

f) carcinogenicity:

Conclusion / Summary: No known significant effects or critical hazards.

g) reproductive toxicity:

Conclusion / Summary: No known significant effects or critical hazards.

h) specific target organ toxicity single exposure

Conclusion / Summary: No known significant effects or critical hazards.

i) specific target organ toxicity after repeated exposure

Conclusion / Summary: No known significant effects or critical hazards.

j) Aspiration hazard

Conclusion / Summary: No known significant effects or critical hazards.

Teratogenicity

Conclusion / Summary: No known significant effects or critical hazards.

Information on the likely routes of exposure: No known significant effects or critical hazards.

Potential acute health effects

Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory tract. Exposure to decomposition products may cause a health hazard. After exposure serious effects may be delayed.

Ingestion: May cause burns to mouth, throat and stomach.

Skin contact: Corrosive to the skin.

Eye contact: Corrosive to eyes.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No specific data.

Ingestion: Adverse symptoms may include: stomach pain

Skin contact: Adverse symptoms may include the following: pain or irritation redness blistering may occur.

Eye contact: Adverse symptoms may include the following: pain watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not determined for the mixture.

Potential delayed effects: Not determined for the mixture.

Long-term exposure

Potential immediate effects: Not determined for the mixture.

Potential delayed effects: Not determined for the mixture.

Potential chronic health effects

Conclusion / Summary: Not determined for the mixture.

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Other information: Not determined for the preparation.

12. Ecological information**12.1 Toxicity**

Name of substance	Result	Species	Exposition
Phosphoric acid	LC ₅₀ 138 mg/l EC ₅₀ 270 mg/l	Fissh Bacteria	96 hours -

Conclusion/Summary: Not determined for this mixture.

12.2 Persistence and degradability

Conclusion/Summary: Not determined for this mixture.

12.3 Bioaccumulative potential

Conclusion/Summary: Not determined for this mixture.

12.4 Mobility in soil

Partition coefficient ground/water (K_{OC}): Not determined for this mixture.

Mobility: Not determined for this mixture.

12.5 Results of PBT and vPvB assessment

PBT: not applicable

vPvB: not applicable

12.6 Other adverse effects

No special effects or hazards known.

13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any exposure scenario or when exposure scenarios on the available application-specific information.

Waste disposal according to EC Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in collaboration with the waste disposal authorities.

13.1 Waste treatment methods

Product

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Material and its container must be disposed of in a safe way. Significant quantities of waste product residue should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the environmental protection requirements and waste disposal legislation and the requirements of local authorities. Avoid the proliferation and dispersal of spilled material and contact with soil, waterways, drains and sewers.

Hazardous waste: According to the information available to the supplier at the time of creation/editing of this safety data sheet this product is regulated as hazardous waste in the sense of EU regulation 2008/98/EC.

Packaging

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled.

Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid the proliferation and dispersal of spilled material and contact with soil, waterways, drains and sewers.

14. Transport information

	ADR/RID	ADR/ADNR	IMDG	IATA
14.1 UN Number	3264	3264	3264	3264
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es)	8 (C1)	8 (C1)	8	8
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	None.	None.	None.	None.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 Not applicable.

Multiplier according to ADR / RID 1.1.6.3: 1

Tunnel restriction code: E

15. Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance/mixture

EC-Regulation Nr. 1907/2006 (REACH)

Appendix XIV - Index of substances that require permission

Substances causing special concern: None of the ingredients is listed.

Appendix XVII – Restriction of the production, the distribution, and the use of specific hazardous substances, mixtures, and products: Not applicable.

Other EU-Regulations

Contents according to 648/2004 EC:

None.

15.2 Chemical safety assessment

This product contains substances that still require substance assessments.

16. Other information

➤ Marks the information that was changed since the last version.

Abbreviations and acronyms:

ADN/ADNR = European agreement for the international transport of hazardous materials on inland waterways

ADR = European agreement for the international transport of hazardous materials on roads

ATE = Estimation acute toxicity

BCF = Bio concentration factor

CLP = Regulation concerning the classification, labeling, and packaging Verordnung über die Einstufung, Kennzeichnung und Verpackung [Regulation (EC) No. 1272/2008]

CAS = Chemical Abstracts Services Number

DNEL = Derived Non-Effect Level

DPD = Mixture regulation [1999/45/EG]

EC = European Commission

EG = EG-Nummer

EUH-Satz = CLP-specific hazard phrase

IATA = International Aviation Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods Code

LogPow = Logarithm base-10 of the n-octanol:water partition coefficient

MARPOL 73/78 = International agreement from 1973 for the prevention of marine pollution caused by ships in the version of the protocol from 1978. ("Marpol" = marine pollution)

MAK = maximum workplace concentration

PBT = Persistent, bioaccumulating, and toxic

PNEC = Predicted No-Effect Concentration

REACH = Regulation concerning the Registration, Evaluation, Approval and Restriction of Chemical Substances [Regulation (EC) No. 1907/2006]

RID = Regulation for the transport of hazardous goods by railway

REACH # = REACH Registration number

vPvB = very persistent and very bioaccumulating

Full text of abbreviated H statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Full text of classifications [CLP / GHS]

Manophos



Met. Corr. 1 = corrosive to metals, substances or mixtures - Category 1
Skin Corr. 1B = SKIN CORROSION / IRRITATION - Category 1B

Manufacturer of protective gloves:

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Industriepark Rhön
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Tel. +49(0)659.87-0
www.kcl.de

The information above is based on the information and experienced of the date of issue. They do not have any type of characteristic assurance. They may not be changed or transposed to other products.

Always read and follow the instructions on the label.