1. Product and company identification

Product identifier

Trade name: Cleaner for WMF milk systems

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

General use: Cleaning agent

Details of the supplier of the safety data sheet

Company name: IBEDA-CHEMIE Klaus P. Christ GmbH
Street/POB-No.: Am Eichelgärtchen 32
Postal Code, city: 56283 Halsenbach
Germany
E-mail: info@ibeda-chemie.com
Telephone: +49 (0)6747-9501-0
Telefax: +49 (0)6747-9501-11
Department responsible for information:
Herr Christ, Telephone: +49 (0)6747-95010 (Only available during office hours.)

Emergency phone number

GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240

2. Hazards identification

Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: liquid
Color: blue
Odor: characteristic

Classification: Skin Irritation - Category 2. Eye Damage - Category 1. Aquatic toxicity - chronic - Category 3.

Hazard symbols:

Signal word: **Danger**

Hazard statements:
Causes skin irritation.
Causes serious eye damage.
Harmful to aquatic life with long lasting effects.

Precautionary statements:
Keep out of reach of children.
Wash hands thoroughly after handling.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Dispose of contents to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified

Contains phosphates: May contribute to the eutrophication of water supplies.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Mixture of the substances listed below with non-hazardous additions

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 79-33-4	Lactic acid	< 15 %	Skin Corrosion - Category 1C. Eye Damage - Category 1.
CAS 7664-38-2	Phosphoric acid	< 5 %	Corrosive to Metals - Category 1. Skin Corrosion - Category 1B.
CAS 97043-91-9	Fatty alcohol polyglycol ether	< 3 %	Acute Toxicity - oral - Category 4. Eye Damage - Category 1.
CAS 85409-22-9	Benzyl-C12-14-alkyldimethylammonium chlorides	< 2 %	Corrosive to Metals - Category 1. Acute Toxicity - oral - Category 4. Skin Corrosion - Category 1B. Eye Damage - Category 1. Aquatic toxicity - acute - Category 1 (M-factor = 10). Aquatic toxicity - chronic - Category 1 (M-factor = 1).

4. First aid measures

General information: If you feel unwell, seek medical advice.

In case of inhalation: Provide fresh air. Seek medical treatment in case of troubles.

Following skin contact: Take off contaminated clothing and wash it before reuse. Wash affected skin with generous amount of water.
Soda solution (5-10%) can be used for removal of residues. In case of skin irritation, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.

After swallowing: Rinse mouth with water. Drink large quantities of water.
Never give an unconscious person anything through the mouth.
Do not induce vomiting. Immediately get medical attention.

Most important symptoms/effects, acute and delayed

Causes serious eye damage. Causes skin irritation.

Information to physician

Treat symptomatically.
Alcohol is strongly contraindicated.
Contains bactericide.

5. Fire fighting measures

Flash point/flash point range: No data available

Auto-ignition temperature: not self-igniting

Suitable extinguishing media: Extinguishing powder, carbon dioxide, foam, sand.

Extinguishing media which must not be used for safety reasons:
Full water jet

Specific hazards arising from the chemical

In case of fire may be liberated: Nitrogen oxides (NOx), phosphorus compounds, hydrogen chloride, carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Cool endangered containers with water spray and, if possible, remove from danger zone. Use a water fog to control vapors. Do not breathe fumes. Do not allow water used to extinguish fire to enter drains, ground or waterways. Fire water reacts acidic.

6. Accidental release measures

Personal precautions: Avoid contact with skin, eyes, and clothing. Do not breathe vapor or spray. In case of accident or if you feel unwell, seek medical advice immediately. Provide adequate ventilation.
In case of handling larger quantities: Wear appropriate protective equipment. Keep unprotected people away. Take off contaminated clothing and wash it before reuse.

Environmental precautions: Do not allow to penetrate into soil, waterbodies or drains.

Methods for clean-up: Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance.
Final cleaning: Wash spill area with plenty of water.

Additional information: Special danger of slipping by leaking/spilling product.

7. Handling and storage

Handling

Advices on safe handling: Transfer and handle product only in closed systems.
Provide adequate ventilation, and local exhaust as needed.
Keep your workplace clean.
Avoid contact with skin, eyes, and clothing. Do not breathe vapor or spray.
When using do not eat, drink or smoke.

In case of handling larger quantities: Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

Precautions against fire and explosion:
Usual measures for fire prevention.

Storage

Requirements for storerooms and containers:
Keep container tightly closed in a cool, well-ventilated place.
Protect against heat, sun rays and frost.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7664-38-2	Phosphoric acid	USA: ACGIH: STEL	3 mg/m³
		USA: ACGIH: TWA	1 mg/m³
		USA: NIOSH: STEL	3 mg/m³
		USA: NIOSH: TWA	1 mg/m³
		USA: OSHA: TWA	1 mg/m³

Engineering controls

Provide good ventilation and/or an exhaust system in the work area.
See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: Nitrile rubber - NBR 0.11 mm.
Breakthrough time: > 480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.
Dust mask/Particulates filter P1 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations: Avoid contact with skin, eyes, and clothing. Take off contaminated clothing and wash it before reuse.
Avoid the formation of aerosol/vapors. Do not breathe vapor or spray.
Have eye wash bottle or eye rinse ready at work place.
When using do not eat, drink or smoke.
Wash hands before breaks and after work.

Environmental exposure controls

Do not allow to penetrate into soil, waterbodies or drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F and 101.3 kPa: liquid Color: blue
Odor:	characteristic
Odor threshold:	No data available
pH:	at 68 °F, 10 g/L: approx. 3.2
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	> 212 °F
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	not combustible
Explosion limits:	No data available
Vapor pressure:	at 68 °F: (Water) 20 hPa
Vapor density:	No data available
Density:	at 68 °F: 1.09 g/mL
Water solubility:	miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	> 212 °F
Explosive properties:	Product is not explosive.

10. Stability and reactivity

Reactivity: No data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:
No dangerous reactions are known.

Conditions to avoid: Excessive heating. Avoid the formation of aerosol/vapors. Protect against heat, sun rays and frost.

Incompatible materials: Strong acids, alkalis

Hazardous decomposition products:
No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: > 212 °F

11. Toxicological information

Toxicological tests

Toxicological effects:

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.
ATEmix (calculated): 2,000 mg/kg < ATE <= 5,000 mg/kg.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.

Serious eye damage/irritation: Eye Damage - Category 1 = Causes serious eye damage.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Lack of data.

Other information:

Information about Benzyl-C12-14-alkyldimethylammonium chlorides:
LD50 Rat oral: 795 mg/kg bw (OECD 401)

Symptoms

In case of ingestion:
Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Information about Lactic acid:
Algae toxicity:
IC50 Selenastrum capricornutum : 3500 mg/L/72 h (OECD 201).
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): 240 mg/L/48 h (OECD 202).
Fish toxicity:
LC50 Danio rerio (zebrafish): 320 mg/L/96 h (OECD 203).

Information about Phosphoric acid:
Fish toxicity:
Median value (lethal) Lepomis macrochirus (bluegill): pH 3 - 3.25 (96h)
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): >100 mg/L/48h (OECD 202)
NOEC Daphnia magna (Big water flea): 56 mg/L/48h (OECD 202)
Algae toxicity:
EC50 Desmodesmus subspicatus (green algae): >100 mg/L/72 h (OECD 201)
NOEC Desmodesmus subspicatus (green algae): 100 mg/L/72 h (OECD 201)

Information about Benzyl-C12-14-alkyldimethylammonium chlorides:
Algae toxicity:
EC50 Pseudokirchneriella subcapitata (green algae), Growth inhibition: 0.049 mg/L/72h (OECD 201)
EC50 Pseudokirchneriella subcapitata (green algae), Growth inhibition: 0.03 mg/L/96h (OECD 201)
Daphnia toxicity:
EC50 Daphnia: 0.016 mg/L/48h (EU Methid C.2)
EC50 Daphnia magna (Big water flea): 5.9 ppb/48h
NOEC Daphnia: 0.025 mg/L/21d (OECD 211)
Fish toxicity:
LC50 Cyprinodon variegatus, marine water: 1.28 mg/L/96h (OECD 203)
LC50 Lepomis macrochirus (bluegill), freshwater: 0.515 mg/L/96h
LC50 Pimephales promelas (fathead minnow): 0.28 ppm/96h
NOEC Pimephales promelas (fathead minnow): 0.0322 mg/L/96h

Effects in sewage plants: Do not bring higher quantities to clarification plants.

Mobility in soil

No data available

Persistence and degradability

Further details:

Information about Lactic acid
Ultimate biodegradation: 50 % /5 d (compared to pure substance).
BSB5: 50% of COD (compared to pure substance)
CSB: 100% of ThSB

Additional ecological information

General information:

Contains phosphates: May contribute to the eutrophication of water supplies.
Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

Recommendation:

Dispose of waste according to applicable legislation.
Smaller amounts: Dilute with plenty of water.

Package

Recommendation: Rinse with water. Wrap waste as is appropriate for the type of material.
Single packs can be disposed of together with household waste.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR: not applicable

UN proper shipping name

ADR/RID, IMDG, IATA-DGR: Not restricted

Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR: not applicable

Packing group

ADR/RID, IMDG, IATA-DGR: not applicable

Environmental hazards

Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

Sea transport (IMDG)

Proper shipping name: Not restricted
Marine pollutant: no

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - U.S. Federal Regulations

Lactic acid:
TSCA Inventory: listed
TSCA HPVC: not listed

Phosphoric acid:
TSCA Inventory: listed
TSCA HPVC: not listed
Clean Water Act:
Hazardous Substances: RQ 5000 lbs.
Other Environmental Laws:
CERCLA: RQ 5000 lbs.
NIOSH Recommendations:
Occupational Health Guideline: 0506

Fatty alcohol polyglycol ether:
TSCA Inventory: listed; UVCB; EPA flags XU
TSCA HPVC: not listed

National regulations - Great Britain

Hazchem-Code: -

16. Other information

Text for labeling:

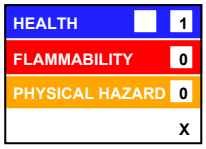
Contains < 15 % Lactic acid, < 5 % Phosphoric acid, < 3 % Fatty alcohol polyglycol ether, < 2 % Benzyl-C12-14-alkyldimethylammonium chlorides. Safety data sheet available on request.
Contains Lactic acid.

Labeling for contents according to regulation (EC) No 648/2004, annex VII:
Contains
- less than 5% cationic surfactants
- 5% or over but less than 15% phosphates

Hazard rating systems:

NFPA Hazard Rating:
Health: 1 (Slight)
Fire: 0 (Minimal)
Reactivity: 0 (Minimal)

HMIS Version III Rating:
Health: 1 (Slight)
Flammability: 0 (Minimal)
Physical Hazard: 0 (Minimal)
Personal Protection: X = Consult your supervisor



Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
Aquatic toxicity - acute: Hazardous to the aquatic environment - acute
Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
COD: Chemical Oyxgen Demand
Corrosive to Metals: Corrosive to metals
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EC50: Effective Concentration 50%
EN: European Standard
EQ: Excepted quantities
Eye Damage: Eye damage
Eye Irritation: Eye irritation
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50: Inhibition Concentration 50%
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
M-factor: Multiplication factor
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit Value
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
Skin Corrosion: Skin corrosion
Skin Irritation: Skin irritation
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 1.4: Emergency phone number

Date of first version: 5/17/2003

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Most recent product information is available at:
http://sumdat.net/fz4qxwh