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 Schaper, Telephone: +49 (0)6747-9501-19
(Only available during office hours.)

Emergency phone number

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

Transport:
CONSULTANK Lutz Harder GmbH (Contract QUALI003)
Telephone: +49 (178) 4337434 (from USA: 01149 178 4337434)

2. Hazards identification

Emergency overview

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

Classification: Skin Corrosion - Category 1C. Eye Damage - Category 1. Aquatic toxicity - chronic - Category 3.

Hazard symbols:

Signal word: **Danger**

Hazard statements: Causes severe skin burns and eye damage.
Harmful to aquatic life with long lasting effects.

Precautionary statements:

Keep out of reach of children.
Do not breathe mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.
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.
Store locked up.
Dispose of contents/container 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	10 - 15 %	Skin Corrosion - Category 1C. Eye Damage - Category 1.
CAS 68439-46-3	Alcohol C9-11, ethoxylated	2 - 5 %	Acute Toxicity - oral - Category 4. Eye Damage - Category 1.
CAS 7664-38-2	Phosphoric acid	2 - 5 %	Corrosive to Metals - Category 1. Acute Toxicity - oral - Category 4. Skin Corrosion - Category 1B. Eye Damage - Category 1.
CAS 68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	1 - 2 %	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: First aider: Pay attention to self-protection!
If medical advice is needed, have product container or label at hand. Take off immediately all contaminated clothing and wash it before reuse.

In case of inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention.

Following skin contact: Immediately clean with water and soap followed by thorough rinsing. Immediately get medical attention.

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 immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately get medical attention.

Most important symptoms/effects, acute and delayed

Causes severe skin burns and eye damage.

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:
Use a breathing apparatus independent of the ambient air (isolated apparatus) and a full protection outfit (suit) against chemicals.

Additional information: Cool endangered containers with water spray and, if possible, remove from danger zone. Use water spray jet to knock down vapors. Do not breathe fumes. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities. Fire water reacts acidic.

6. Accidental release measures

Personal precautions: Do not breathe mist/vapors/spray. Avoid contact with the substance.
If possible, eliminate leakage. Provide adequate ventilation.
Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Keep unprotected people away. When handling large quantities, supply emergency spray.

Environmental precautions:
Do not allow to enter into ground-water, surface water or drains.
If necessary, notify appropriate authorities.

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: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse.
When handling large quantities, supply emergency spray.

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

Storage

Requirements for storerooms and containers:
Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from heat and direct sunlight.
Store containers in upright position.

Hints on joint storage: Do not store together with: strong acids, alkalis.
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 for good ventilation or exhaust system or work with completely self-contained equipment.
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.
Half mask with particle filter P2.

General hygiene considerations:

Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Take off immediately all contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
When handling large quantities, supply emergency spray.

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:	Refer to subsection "Possibility of hazardous reactions".
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 Corrosion -
Category 1C = Causes severe skin burns and eye damage.

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 Alcohol C9-11, ethoxylated (CAS: 68439-46-3):
LD50 Rat oral: > 300 - < 2,000 mg/kg bw
LD50 Rabbit, dermal: > 2,000 mg/kg

Information about Phosphoric acid (CAS: 7664-38-2):
LD50 Rat oral: > 300 - < 2,000 mg/kg bw

Information about Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (CAS: 68424-85-1):
LD50 Rat oral: > 300 - < 2,000 mg/kg bw (OECD 401)

Symptoms

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Information about Lactic acid (CAS: 79-33-4):
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 (CAS: 7664-38-2):
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 Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, 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:

UN 1760

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1760, CORROSIVE LIQUID, N.O.S. (Lactic acid)

Transport hazard class(es)

ADR/RID: Class 8, Code: C9
IMDG: Class 8, Subrisk -
IATA-DGR: Class 8

Packing group

ADR/RID, IMDG, IATA-DGR:

III

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)

Identification number:	UN1760
Proper shipping name:	UN 1760, CORROSIVE LIQUIDS, N.O.S. (Lactic acid)
Hazard class or Division:	8
Packing Group:	III
Labels:	8
Symbols:	G
Special Provisions:	IB3, T7, TP1, TP28
Packaging – Exceptions:	154
Packaging – Non-bulk:	203
Packaging – Bulk:	241
Quantity limitations – Passenger aircraft / rail:	5 L
Quantity limitations – Cargo only:	60 L
Vessel stowage – Location:	A
Vessel stowage – Other:	40

Sea transport (IMDG)

UN number:	UN 1760
Proper shipping name:	UN 1760, CORROSIVE LIQUID, N.O.S. (Lactic acid)
Class or division, Subsidary risk:	Class 8, Subrisk -
Packing Group:	III
EmS:	F-A, S-B
Special Provisions:	223 274
Limited quantities:	5 L
Excepted quantities:	E1
Package - Instructions:	P001, LP01
Package - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP28
Stowage and handling:	Category A. SW2
Properties and observations:	Causes burns to skin, eyes and mucous membranes.
Marine pollutant:	no
Segregation group:	none

Air transport (IATA)

UN/ID number:	UN 1760
Proper shipping name:	UN 1760, CORROSIVE LIQUID, N.O.S. (Lactic acid)
Class or division, Subsidary risk:	Class 8
Packing Group:	III
Hazard label:	Corrosive
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L
Special Provisions:	A3 A803
Emergency Response Guide-Code (ERG):	8L

15. Regulatory information

National regulations - U.S. Federal Regulations

Diammonium hydrogenorthophosphate:	TSCA Inventory: listed
Lactic acid:	TSCA Inventory: listed
Alcohol C9-11, ethoxylated:	TSCA Inventory: listed; UVCB
Phosphoric acid:	TSCA Inventory: listed
	Clean Water Act: CWA Hazardous Substances: RQ 5000 lbs. Other Environmental Laws: CERCLA: RQ 5000 lbs.
	NIOSH Recommendations: Occupational Health Guideline: 0506

National regulations - U.S. State Regulations

No data available

National regulations - Canada

Diammonium hydrogenorthophosphate:	DSL: listed
Lactic acid:	DSL: listed
Alcohol C9-11, ethoxylated:	DSL: listed
Phosphoric acid:	DSL: listed
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:	DSL: listed

National regulations - Great Britain

Hazchem-Code: 2X

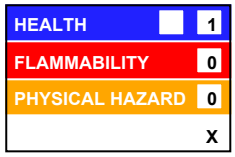
16. Other information

Text for labeling: Contains 10 - 15 % Lactic acid, 2 - 5 % Alcohol C9-11, ethoxylated, 2 - 5 % Phosphoric acid, 1 - 2 % Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides.
Contains: < 5% cationic surfactant, <5% non-ionic surfactant, 5% -<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



Classification procedure: Physical hazards: on basis of test data
Health hazards, environmental hazards: calculation method

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
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 Oxygen Demand
Corrosive to Metals: Corrosive to metals
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
DOT: Department of Transportation's Safety Regulations (USA)
EC: European Community
EC50: Effective Concentration 50%
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
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
IMO: International Maritime Organization
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
Skin Corrosion: Skin corrosion
Skin Irritation: Skin irritation
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 1: Trade name, material 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:
https://sumdat.net/fz4qxwh3