

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Trade name: MILKICID

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

Recommended use: For use in the animal feed industry.

Uses advised against: See declaration

1.3. Details of the supplier of the safety data sheet

Company:

ADDCON GmbH

Parsevalstr. 6

06749 Bitterfeld-Wolfen – Germany

Tel: +49-3493 96787 00

Fax: +49-3493 96787 70

Email: info@addcon.com

Internet: www.addcon.com

Competent person responsible for the safety data sheet: qm@addcon.com

1.4. Emergency telephone number

Emergency CONTACT (24-Hour-Number) GBK GmbH: +49 6132-84463

Malta 112

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

Eye Dam. 1 Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements**Regulation (EC) No 1272/2008 (CLP):****Hazard pictograms and Signal Word**

Danger

Hazard statements

H318 Causes serious eye damage.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands/face thoroughly after handling.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
3

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P310 Immediately call a POISON CENTER/doctor

P501 Dispose of contents and container in accordance with local, state and federal regulations.

Contains

Formic acid

Calcium diformate
Citric acid
Sorbic acid (Hexa-2,4-dienoic acid)

Special provisions according to Annex XVII of REACH and subsequent amendments:
None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$
Other Hazards: The product tends to decompose upon exposure to moisture and strong acids and may release formic acid. In a moist state, it can be corrosive to metals.

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: MILKICID

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
30-40 %	Formic acid	CAS:64-18-6 EC:200-579-1 Index:607-001-00-0	Skin Corr. 1A, H314; Flam. Liq. 3, H226; Acute Tox. 3, H331; Acute Tox. 4, H302; Eye Dam. 1, H318, EUH071 Specific Concentration Limits: C $\geq$ 90%: Skin Corr. 1A H314 10% $\leq$ C < 90%: Skin Corr. 1B H314 2% $\leq$ C < 10%: Skin Irrit. 2 H315 2% $\leq$ C < 10%: Eye Irrit. 2 H319	01-2119491174-37-XXXX
5-7 %	Calcium diformate	CAS:544-17-2 EC:208-863-7	Eye Dam. 1, H318	
5-7 %	Citric acid	CAS:5949-29-1 EC:201-069-1	Eye Irrit. 2, H319	01-2119457026-42-XXXX
2.5-3 %	Sorbic acid (Hexa-2,4-dienoic acid)	CAS:110-44-1 EC:203-768-7	Skin Irrit. 2, H315; Eye Irrit. 2, H319	

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:
Immediately take off all contaminated clothing.
Remove contaminated clothing immediately and dispose off safely.
Wash immediately with water.
In case of persistent skin irritation consult a doctor.

In case of eyes contact:
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Protect uninjured eye.
OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of Ingestion:
Do not induce vomiting, get medical attention showing the SDS and label hazardous.
OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation: Over-exposure by inhalation (dust) may cause respiratory irritation (coughing).
Ingestion: Ingestion of the product may cause irritation and discomfort.
Skin contact: Irritating by over-exposure on skin.
Eye contact: Irritant. Risk for serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Small fire suitable: Use dry chemical or CO₂. Large fire suitable: Use water, alcohol resistant foam or dry chemical powder.

Extinguishing media which must not be used for safety reasons:

Direct water jet on the product

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

CO₂, CO_x, Na₂O

5.3. Advice for firefighters

Wear suitable protective clothing (helmet, protective clothings, goggles, fire resistant gloves, boots) and protect respiratory organs (self contained breathing apparatus).

Use suitable breathing apparatus .

Move undamaged containers from immediate hazard area if it can be done safely.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

For non emergency personnel:

Avoid inhalation of dust/gas/mist. Avoid substance contact. Ensure adequate ventilation.

Evacuate the danger area, observe emergency procedures, consult an expert.

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

After the product has been recovered, rinse the area and materials involved with water.

Dispose of the collected material in accordance with the current regulations.

Wash with plenty of water.

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use with adequate ventilation. Local exhaust ventilation should be provided. Avoid creating dusty conditions and prevent wind dispersal.

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Advice on general occupational hygiene:

Observe label precautions. Skin and eye contact as well as inhalation are to be avoided. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid).

Use with adequate ventilation. Local exhaust ventilation should be provided. Wear suitable protective clothing as described in section 8

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

Instructions as regards storage premises:

Storage class: 13 (non-combustible solids)

Adequately ventilated premises.

Packaging materials:

Polyethylene or Big Bags (polypropylene).

Store in corrosive resistant container.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Occupational Exposure Limit
Formic acid CAS: 64-18-6	ACGIH	Long Term: 5 ppm; Short Term: 10 ppm URT, eye, and skin irr
	EU	Long Term: 9 mg/m3 - 5 ppm

Predicted No Effect Concentration (PNEC) values

Formic acid CAS: 64-18-6	Exposure Route: Fresh Water; PNEC Limit: 2 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.2 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 1 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 13.4 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 1.34 mg/kg
	Exposure Route: Soil; PNEC Limit: 1.5 mg/kg
Calcium diformate CAS: 544-17-2	Exposure Route: STP; PNEC Limit: 7.2 mg/l
	Exposure Route: Fresh Water; PNEC Limit: 2 mg/l
	Exposure Route: Intermittent releases (fresh water); PNEC Limit: 10 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.2 mg/l
	Exposure Route: STP; PNEC Limit: 2.21 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 13.4 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 1.34 mg/kg
	Exposure Route: Soil; PNEC Limit: 1.5 mg/kg

Derived No Effect Level (DNEL) values

Formic acid CAS: 64-18-6	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 9.5 mg/m3; Consumer: 3 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects Worker Industry: 9.5 mg/m3; Consumer: 3 mg/m3
Calcium diformate CAS: 544-17-2	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Industry: 337 mg/m3; Worker Professional: 337 mg/m3; Consumer: 83.2 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects Worker Industry: 4780 mg/kg bw/d; Worker Professional: 4870 mg/kg bw/d; Consumer: 2390 mg/kg bw/d
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects Worker Industry: 4780 mg/kg bw/d; Worker Professional: 4780 mg/kg bw/d; Consumer: 2390 mg/kg bw/d
	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Industry: 337 mg/m3; Worker Professional: 337 mg/m3; Consumer: 83.2 mg/m3
	Exposure Route: Human Dermal; Exposure Frequency: Long Term, local effects Worker Industry: 16.7 mg/cm2; Worker Professional: 16.7 mg/cm2; Consumer: 8.3 mg/cm2
	Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects Worker Industry: 16.7 mg/cm2; Worker Professional: 16.7 mg/cm2; Consumer: 8.3 mg/cm2
	Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects Consumer: 23.9 mg/kg bw/d

8.2. Exposure controls

Individual protection measures:

Personal protective equipment selections vary based on potential exposure conditions and working conditions.

The final choice of protective equipment will depend upon a risk assessment.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Please see both sections 5 and 6 for information about personal protective equipment to be worn in an emergency (e.g.: fire or unintentional release of the substance).

Eye protection:

Chemical risk goggles (with side protection).

Protection for skin:

Wear closed long-sleeved protective clothing and dense footwear.

Protection for hands:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Glove suitability and breakthrough time will differ depending on the specific use conditions.

Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions.

Performance level 6, corresponding to > 480 minutes permeation time according to EN ISO 374-1.

Suitable materials, even for prolonged, direct contact:

Recommended:

Neoprene - 0.6 mm material thickness

Butyl rubber (butyl) - 0.7 mm thickness

Vinyl chemical protective glove - 1.8 mm thickness

Incompatible materials:

Nitrile rubber.

Respiratory protection:

Depending on the potential for exposure, select respiratory protective equipment suitable for the specific conditions of use and in compliance with current legislation.

In case of inadequate ventilation wear respiratory protection.

Filter mask FFP2/FFP3 for solid particles

Keep self contained breathing apparatus readily available for emergency use. Use of self contained breathing apparatus is recommended if the characteristics of the exposure are not known, for example, during maintenance activities.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid

Colour: white

Odour: Slightly odorous

pH: 2.5 – 4.5 (10%)

Kinematic viscosity: N.A.

Melting point/freezing point: N.A.

Boiling point or initial boiling point and boiling range: N.A.

Flash point:

Lower and upper explosion limit: N.A.

Relative vapour density: N.A.

Vapour pressure: N.A.

Density and/or relative density: 0.9 – 1.0 g/cm³

Solubility in water: Very soluble

Solubility in oil: N.A.

Partition coefficient n-octanol/water (log value): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Flammability: N.A.

Volatile Organic compounds - VOCs = N.A.

Particle characteristics:

Particle size: N.A.

9.2. Other information

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable under normal conditions.

10.2. Chemical stability

The product tends to decompose upon exposure to moisture and strong acids and may release formic acid.

10.3. Possibility of hazardous reactions

Stable under normal conditions.

10.4. Conditions to avoid

Moisture

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicological Information of the Preparation**

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Formic acid	a) acute toxicity	LD50 Oral Rat = 730 mg/kg bw	OECD 401
		LC50 Inhalation Rat = 7.85 mg/l 4h	OECD 403
		LD50 Skin Rat > 2000 mg/kg bw	
	b) skin corrosion/irritation	Skin Corrosive Rabbit Positive	OECD 404
	c) serious eye damage/irritation	Eye Corrosive Rabbit Positive	EEC 84/450, B5
	d) respiratory or skin sensitisation	Skin Sensitization Guinea pig Negative	OECD 406
	e) germ cell mutagenicity	Genotoxicity - Tests on animals gave no indication of effects. The product has not been tested. The statement was derived from substances/products of similar structure or composition.	
	f) carcinogenicity	Carcinogenicity - Tests on animals gave no indication of effects. The product has not been tested. The statement was derived from substances/products of similar structure or composition.	
	g) reproductive toxicity	Reproductive Toxicity - Tests on animals gave no	

indication of effects. The product has not been tested. The statement was derived from substances/products of similar structure or composition.

Calcium diformate	a) acute toxicity	LD50 Oral Rat 2650 mg/kg LD50 Skin Rat > 2000 mg/kg	
	c) serious eye damage/irritation	Eye Irritant Rabbit Yes	100 mg/24h Draize Test
	e) germ cell mutagenicity	Mutagenesis Negative	AMES Test
Citric acid	a) acute toxicity	LD50 Oral Mouse = 5400 mg/kg	
		LD50 Oral Rat = 3000 mg/kg	
		LD50 Skin Mouse = 2700 mg/kg	
		LD50 Skin Rat = 5500 mg/kg	

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
Formic acid	CAS: 64-18-6 - EINECS: 200- 579-1 - INDEX: 607-001-00-0	a) Aquatic acute toxicity : LC50 Fish Brachydanio rerio 130 mg/l 96h - OECD 203
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna = 365 mg/l 48h - OECD 202
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna ≥ 100 mg/l 21 d - OECD 211
		c) Bacteria toxicity : NOEC = 72 mg/l 13 d
		a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum 1240 mg/l 72h
Calcium diformate	CAS: 544-17-2 - EINECS: 208- 863-7	a) Aquatic acute toxicity : LC50 Fish Scophthalmus maximus 1720 mg/l 96h
		a) Aquatic acute toxicity : EC50 Daphnia Daphnia magna > 1000 mg/l 48h
		b) Aquatic chronic toxicity : NOEC Daphnia Daphnia magna ≥ 100 mg/l 21 d
		a) Aquatic acute toxicity : EC50 Algae Pseudokirchneriella subcapitata > 1000 mg/l 72h
Citric acid	CAS: 5949-29-1 - EINECS: 201- 069-1	a) Aquatic acute toxicity : EC50 Daphnia = 120 mg/l 72h
		a) Aquatic acute toxicity : EC50 Bacteria > 10000 mg/l 16h
		a) Aquatic acute toxicity : LC50 Fish = 760 mg/l 96h

12.2. Persistence and degradability

Component	Persistence/Degradability:	Test	Value	Notes:
Formic acid	Readily biodegradable	Test method: OECD 301D; EEC 92/69, C.4-E (aerobic), activated		

		sludge, domestic. Method of analysis: BOD of the ThOD.		
	Readily biodegradable	Chemical oxygen degrading (COD): 348 mg/g Biochemical oxygen degrading (BOD): 86 mg/g (5 days)		
Calcium diformate	Readily biodegradable	Biochemical oxygen demand	86.000	OECD 306

12.3. Bioaccumulative potential

Component	Bioaccumulation	Test	Value	Notes:
Formic acid	Not bioaccumulative	Kow - Partition coefficient		log Kow: -0,54 (25 °C)
Calcium diformate		Kow - Partition coefficient		LogPow = -2.3
Citric acid	Bioaccumulative	BCF - Bioconcentration factor	0.010	

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

12.6. Endocrine disrupting properties

No PBT or vPvB substances present in concentration $\geq 0.1\%$

No endocrine disruptor substances present in concentration $\geq 0.1\%$

12.7. Other adverse effects

The product does not contain organically bound halogens which could lead to an AOX
(Absorbable Organically bound Halogens) value in waste water.

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

N.A.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Regulation (EU) n. 2020/878

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP) and subsequent amendments

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 40, 75

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

Where applicable, refer to the following regulatory provisions :

German Water Hazard Class.

Class 1: slightly hazardous for water.

SVHC Substances:

No SVHC substances present in concentration $\geq 0.1\%$

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
EUH071	Corrosive to the respiratory tract.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.

Code	Hazard class and hazard category	Description
2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/3/Inhal	Acute Tox. 3	Acute toxicity (inhalation), Category 3
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1A	Skin Corr. 1A	Skin corrosion, Category 1A
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Eye Dam. 1, H318	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ATE: Acute Toxicity Estimate
 ATEmix: Acute toxicity Estimate (Mixtures)
 BCF: Biological Concentration Factor
 BEI: Biological Exposure Index
 BOD: Biochemical Oxygen Demand
 CAS: Chemical Abstracts Service (division of the American Chemical Society).
 CAV: Poison Center
 CE: European Community
 CLP: Classification, Labeling, Packaging.
 CMR: Carcinogenic, Mutagenic and Reprotoxic
 COD: Chemical Oxygen Demand
 COV: Volatile Organic Compound
 CSA: Chemical Safety Assessment
 CSR: Chemical Safety Report
 DMEL: Derived Minimal Effect Level
 DNEL: Derived No Effect Level.
 DPD: Dangerous Preparations Directive
 DSD: Dangerous Substances Directive
 EC50: Half Maximal Effective Concentration
 ECHA: European Chemicals Agency
 EINECS: European Inventory of Existing Commercial Chemical Substances.
 ES: Exposure Scenario
 GefStoffVO: Ordinance on Hazardous Substances, Germany.
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 IARC: International Agency for Research on Cancer
 IATA: International Air Transport Association.
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 IC50: half maximal inhibitory concentration
 ICAO: International Civil Aviation Organization.
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
 IMDG: International Maritime Code for Dangerous Goods.
 INCI: International Nomenclature of Cosmetic Ingredients.
 IRCCS: Scientific Institute for Research, Hospitalization and Health Care
 KAFH: KAFH
 KSt: Explosion coefficient.
 LC50: Lethal concentration, for 50 percent of test population.
 LD50: Lethal dose, for 50 percent of test population.
 LDLo: Leathal Dose Low
 N.A.: Not Applicable
 N/D: Not defined/ Not available
 NIOSH: National Institute for Occupational Safety and Health
 NOAEL: No Observed Adverse Effect Level
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, Bioaccumulative and Toxic
 PGK: Packaging Instruction
 PNEC: Predicted No Effect Concentration.
 PSG: Passengers
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
 STEL: Short Term Exposure limit.
 STOT: Specific Target Organ Toxicity.
 TLV: Threshold Limiting Value.
 TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
 vPvB: Very Persistent, Very Bioaccumulative.
 WGK: German Water Hazard Class.