Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Date of compilation: 2024-06-13 Replaces version of: 2024-02-01

SECTION 1: Identification

1.1 Product identifier

Product name **Food Service Degreaser**

Product number 2258FS

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

Relevant identified uses

Degreaser

Uses advised against

All uses other than those indicated on the product label and technical data sheet.

1.3 Details of the supplier of the safety data sheet

Essential Industries, Inc.
28391 Essential Road
P.O. Box 12
Merton Wisconsin 53056
United States

Telephone: 262-538-1122
Website: www.essind.com

1.4 Emergency telephone number

Emergency information service 800-843-6174 (24 hours)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Skin Corr. 1.
Eye Dam. 1.
Skin Sens. 1.
Carc. 2.
Repr. 2.
STOT RE 2.
Met. Corr. 1.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word Danger

- Pictograms

- Hazard statements

May be corrosive to metals.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging the unborn child.

- Hazard statements

May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

Obtain special instructions before use.
Keep only in original container.
Do not breathe dusts or mists.
Contaminated work clothing must not be allowed out of the workplace.
Wear eye protection/face protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin: Wash with plenty of water.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.
Store locked up.
Store in corrosive resistant container with a resistant inner liner.
Dispose of contents/container to industrial combustion plant.

Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

2.3 Other hazards

of no significance

SECTION 3: Composition/information on ingredients

3.1 Substance / Mixture

Mixture

3.2 Mixtures

Description of the mixture

Name of substance	CAS No	Wt%	Classification acc. to GHS
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	5 – < 10	Acute Tox. 4 / H332 Eye Irrit. 2 / H319
Coconut diethanolamide	68603-42-9	5 – < 10	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1 / H317 Carc. 2 / H351 STOT RE 2 / H373 Flam. Liq. 4 / H227
Tetrasodium Ethylenediamine Tetraacetate	64-02-8	5 – < 10	Acute Tox. 4 / H302 Eye Irrit. 2 / H319
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	5 – < 10	Eye Irrit. 2 / H319
Potassium Hydroxide	1310-58-3	1 – < 5	Acute Tox. 4 / H302 Skin Corr. 1A / H314 Eye Dam. 1 / H318 Met. Corr. 1 / H290
Sodium Carbonate	497-19-8	1 – < 5	Eye Irrit. 2 / H319

Name of substance	CAS No	Wt%	Classification acc. to GHS
Diethanolamine	111-42-2	1 – < 5	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Carc. 2 / H351 Repr. 2 / H361d STOT RE 2 / H373
Disodium metasilicate	6834-92-0	< 1	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Skin Corr. 1B / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Met. Corr. 1 / H290

Remarks

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Substance or mixture corrosive to metals.

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Self-contained breathing apparatus (SCBA). Standard protective clothing for firefighters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it in accordance with all local, state and federal regulations.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas. Never add water to this product.

- Handling of incompatible substances or mixtures

Do not mix with acids.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

Environmental Controls

Protect against external exposure, such as

frost

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	diethanolamine	111-42-2	REL	3 (10 h)	15 (10 h)						NIOSH REL
US	diethanolamine	111-42-2	PEL (CA)	0.46	2					H	Cal/OSHA PEL
US	diethanolamine	111-42-2	TLV®		1					iv, H	ACGIH® 2023
US	potassium hydroxide	1310-58-3	REL						2		NIOSH REL
US	potassium hydroxide	1310-58-3	TLV®						2		ACGIH® 2023
US	potassium hydroxide (caustic potash)	1310-58-3	PEL (CA)						2		Cal/OSHA PEL

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
iv	inhalable fraction and vapor

Notation	
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear appropriate respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	Light Amber
Odor	Bland

Other safety parameters

pH (value)	12.7 – 13.7 (base)
Melting point/freezing point	0 °C (32 °F)
Initial boiling point and boiling range	100 °C (212 °F)
Flash point	>93.33 °C (>200 °F) (c.c.)
Lower explosion limit (LEL)	not determined
Upper explosion limit (UEL)	not determined

Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	<4 kPa at 20 °C
Density	1.15 $^{g}/_{cm^3}$
Vapor density	<1 (Air=1)
Solubility(ies)	not determined
VOC	0.6%

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

Auto-ignition temperature	not determined
Decomposition temperature	not determined
Viscosity	not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". Substance or mixture corrosive to metals.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	inhalation: vapor	11 $^{mg}/_{l}$/4h
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	inhalation: dust/mist	>1.9 $^{mg}/_{l}$/4h
Tetrasodium Ethylenediamine Tetraacetate	64-02-8	oral	>1,780 $^{mg}/_{kg}$
Potassium Hydroxide	1310-58-3	oral	333 $^{mg}/_{kg}$
Diethanolamine	111-42-2	oral	1,100 $^{mg}/_{kg}$
Disodium metasilicate	6834-92-0	oral	770 $^{mg}/_{kg}$
Disodium metasilicate	6834-92-0	inhalation: vapor	>2.06 $^{mg}/_{l}$/4h
Disodium metasilicate	6834-92-0	inhalation: dust/mist	>0.5 $^{mg}/_{l}$/4h

Acute toxicity of components

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	inhalation: dust/mist	LC50	>1.9 $^{mg}/_{l}$/4h	rat
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	dermal	LD50	>5,000 $^{mg}/_{kg}$	rabbit
Tetrasodium Ethylenediamine Tetraacetate	64-02-8	oral	LD50	>1,780 – <2,000 $^{mg}/_{kg}$	rat
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	oral	LD50	>7,000 $^{mg}/_{kg}$	rat
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	inhalation: dust/mist	LC50	>770 $^{mg}/_{l}$/4h	rat
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	dermal	LD50	>2,000 $^{mg}/_{kg}$	rabbit
Potassium Hydroxide	1310-58-3	oral	LD50	333 $^{mg}/_{kg}$	rat
Sodium Carbonate	497-19-8	oral	LD50	2,800 $^{mg}/_{kg}$	rat
Sodium Carbonate	497-19-8	dermal	LD50	>2,000 $^{mg}/_{kg}$	rabbit
Diethanolamine	111-42-2	oral	LD50	1,100 $^{mg}/_{kg}$	rat

Acute toxicity of components

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Disodium metasilicate	6834-92-0	oral	LD50	770 – 820 $^{mg}/_{kg}$	mouse
Disodium metasilicate	6834-92-0	inhalation: vapor	LC50	>2.06 $^{mg}/_{l}$/4h	rat
Disodium metasilicate	6834-92-0	dermal	LD50	>5,000 $^{mg}/_{kg}$	rat

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Diethanolamine	111-42-2	2B	
Coconut diethanolamide	68603-42-9	2B	

Legend
2B Possibly carcinogenic to humans

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	LL50	>10,000 mg/l	fish	96 h
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	EC50	>1,000 mg/l	aquatic invertebrates	48 h
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	ErC50	>1,000 mg/l	algae	72 h
Coconut diethanolamide	68603-42-9	LC50	3.6 mg/l	fish	96 h
Coconut diethanolamide	68603-42-9	EC50	4.2 mg/l	crustacean	24 h
Tetrasodium Ethylene-diamine Tetraacetate	64-02-8	LC50	>100 mg/l	fish	96 h
Tetrasodium Ethylene-diamine Tetraacetate	64-02-8	EC50	>114 mg/l	aquatic invertebrates	48 h
Tetrasodium Ethylene-diamine Tetraacetate	64-02-8	ErC50	>60 mg/l	algae	72 h
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	LC50	>450 mg/l	fish	96 h
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	EC50	>1,000 mg/l	aquatic invertebrates	48 h
Benzenesulfonic acid, (1-methylethyl), -Sodium Salt	28348-53-0	ErC50	230 mg/l	algae	96 h
Sodium Carbonate	497-19-8	LC50	300 mg/l	fish	96 h
Sodium Carbonate	497-19-8	EC50	227 mg/l	aquatic invertebrates	48 h
Diethanolamine	111-42-2	LC50	460 mg/l	fish	96 h
Diethanolamine	111-42-2	EC50	30.1 mg/l	aquatic invertebrates	48 h
Diethanolamine	111-42-2	ErC50	9.5 mg/l	algae	72 h
Disodium metasilicate	6834-92-0	LC50	310 mg/l	fish	96 h
Disodium metasilicate	6834-92-0	EC50	1,700 mg/l	aquatic invertebrates	48 h

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Benzene Sulfonic Acid, C10-16 Alkyl Derivatives	68584-22-5	EC50	≤5,000 mg/l	microorganisms	8 h
Diethanolamine	111-42-2	EC50	11.82 mg/l	aquatic invertebrates	21 d
Disodium metasilicate	6834-92-0	EC50	>100 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Dispose of contents/container in accordance with local/regional/national/international regulations. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Dispose of contents/container to an authorized waste treatment facility. Waste should not be disposed of by release to sewers. Avoid release to the environment. Empty container and inner liner may contain product residues. Ideally, waste should be prevented and what cannot be prevented should be re-used, recycled and recovered as much as feasible.

SECTION 14: Transport information

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN1719, Caustic alkali liquids, n.o.s., (Potassium Hydroxide), 8, III
Danger label(s)	8

ERG No	154
Limited quantities (LQ)	5L

International Maritime Dangerous Goods Code (IMDG) - Additional information

Particulars in the shipper's declaration	UN1719, CAUSTIC ALKALI LIQUIDS, N.O.S., (Potassium Hydroxide), 8, III
Marine pollutant	-
Danger label(s)	8

Limited quantities (LQ)	5 L
Segregation group	18 - Alkalis

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Particulars in the shipper's declaration	UN1719, Caustic alkali liquids, n.o.s., (Potassium Hydroxide), 8, III
Danger label(s)	8

Limited quantities (LQ)	1 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations

Toxic Substance Control Act (TSCA)	all ingredients are listed (ACTIVE) or exempt from listing
DSL/NDSL (Canada)	all ingredients are listed on or exempt from the DSL

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	CAS No	Remarks	Effective date
Diethanolamine	111-42-2		1987-01-01

Clean Air Act

none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Remarks	Type of the toxicity
diethanolamine	111-42-2		cancer
coconut oil diethanolamine condensate (cocamide diethanolamine)			cancer

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2023	From ACGIH®, 2023 TLVs® and BEIs® Book. Copyright 2023. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval

Abbr.	Descriptions of used abbreviations
ED	Endocrine disruptor
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
Met. Corr.	Substance or mixture corrosive to metals
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
Repr.	Reproductive toxicity
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on the tested mixture and/or formulator knowledge.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H227	Combustible liquid.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.