

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Trade name	MARLIPAL 1618/11
INCI	Ceteareth-11
Substance name (REACH / CLP)	Alcohols, C16-18, ethoxylated (≥ 2.5 moles EO) (CAS: 68439-49-6)

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

Use	Industrial use raw material for cosmetic agents raw material for washing and cleaning agents surface-active substance
Uses advised against	

1.3 Details of the supplier of the safety data sheet

Company	SASOL Germany GmbH Anckelmannsplatz 1 20537 Hamburg
	Telephone: +49 40 63684-1000 Telefax: +49 40 63684-3700
Information (Product safety):	Telephone: + 49 (0) 23 65 - 49 47 05 Telefax: + 49 (0) 23 65 - 49 92 40
E-mail address	msds-info.germany@de.sasol.com

1.4 Emergency telephone number

Emergency telephone number	+ 49 (0) 23 65 - 49 22 32
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SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Acute toxicity Category 4 (Oral)	Harmful if swallowed.
Serious eye damage Category 1	Causes serious eye damage.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)****Hazard pictograms****Signal word**

Danger

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

Hazard statements

H302 Harmful if swallowed.
 H318 Causes serious eye damage.

Precautionary statements

P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear eye protection/ face protection.
 P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 P305 + P351 + P338 + P310 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.
 P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

Danger of slipping after spill or leakage.
 Forms slippery/greasy layers with water.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance in the meaning of regulation (EC) 1907/2006.

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

Alcohols, C16-18, ethoxylated (>= 2.5 EO)

content: >= 90 - <= 100 %

component type: Active ingredient

EC-No.:

Index-No.:

CAS-No.: 68439-49-6

REACH No.: Not relevant (polymer)

Classification (Regulation
(EC) No 1272/2008):

Acute Tox. 4 (Oral)
 Eye Dam. 1

H302
 H318

Specific Concentration Limits (see section 11)

> 20 % Eye Dam. Category 1; H318
 > 1 - 20 % Eye Irrit. Category 2; H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

If you feel unwell, seek medical advice (show the label where possible).

If inhaled

Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

	physician.
In case of skin contact	Wash off immediately with plenty of water. Consult a physician if necessary.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Symptoms: No information available. Risks: No information available.
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4.3 Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed	Treatment: No information available.
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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water spray, Dry powder, Foam, Carbon dioxide (CO2)
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5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	Dangerous gases or fumes may occur in case of fire.
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5.3 Advice for firefighters

Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	Standard procedure for chemical fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment.
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6.2 Environmental precautions

Environmental precautions	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.
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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Use mechanical handling equipment. The material taken up must be disposed of in accordance with regulations.
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6.4 Reference to other sections

For personal protection see section 8.

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	Wear personal protective equipment. Avoid contact with skin and eyes.
Advice on protection against fire and explosion	Provide sufficient air exchange and/or exhaust in work rooms. Do not spray on a naked flame or any incandescent material.
Fire-fighting class	B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Keep tightly closed in a dry and cool place.
Storage class (TRGS 510)	11: Combustible Solids
Other data	Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)

Specific use(s)	This information is not available.
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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters**COMPONENTS WITH WORKPLACE CONTROL PARAMETERS****National occupational exposure limits**

No data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

DERIVED NO EFFECT LEVEL (DNEL)**Substance name: Alcohols, C16-18, ethoxylated (>= 2.5 EO)**

No data available

PREDICTED NO EFFECT CONCENTRATION (PNEC)**Substance name: Alcohols, C16-18, ethoxylated (>= 2.5 EO)**

No data available

8.2 Exposure controls**ENGINEERING MEASURES**

If possible, use material transfer/filling, metering and blending plants that are closed.

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection	In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where dust, fibres and smoke occur, use self-contained breathing apparatus or breathing apparatus with a type P2 or P3 filter, in compliance with EN 143. No personal respiratory protective equipment normally required.
Hand protection	<p>The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).</p> <p>gloves suitable for permanent contact: Material: butyl-rubber Break through time: >= 480 min Layer thickness: >= 0,7 mm</p> <p>gloves suitable for splash protection: Material: Nitrile rubber/nitrile latex Break through time: >= 30 min Layer thickness: >= 0,4 mm</p>
Eye protection	Tightly fitting safety goggles, Safety glasses with side-shields
Skin and body protection	Wear suitable protective equipment.
Hygiene measures	Avoid contact with eyes. General industrial hygiene practice. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. When using, do not eat, drink or smoke.
Protective measures	Avoid contact with eyes. Wear suitable gloves and eye/face protection.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice	Avoid subsoil penetration.
Water	Do not flush into surface water or sanitary sewer system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	solid; 20 °C; 1.013 hPa
Form	Solid form
Colour	white
Odour	mild
Odour Threshold	No valid method available
pH	5 - 7; 20 g/l; 20 °C

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

Melting point/range	ca. 35 °C
Boiling point/boiling range	Not applicable
Flash point	> 200 °C; DIN 51376
Evaporation rate	Not relevant / not applicable Justification: Solid
Flammability (solid, gas)	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	< 0,1 hPa; 20 °C
Relative vapour density	Not relevant / not applicable, Justification: Solid
Density	ca.0,97 g/cm ³ ; 50 °C
Water solubility	20 °C; completely miscible
Partition coefficient: n-octanol/water	Not relevant / not applicable Justification: surface-active substance
Ignition temperature	> 300 °C; DIN 51794
Auto-ignition temperature	not auto-flammable
Viscosity, dynamic	ca. 35 mPas; 50 °C; Brookfield method
Explosive properties	not expected based on structure and functional groups
Oxidizing properties	not expected based on structure and functional groups

9.2 Other data

Additional advice	no data
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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Note	Stable at normal ambient temperature and pressure.
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10.2 Chemical stability

Note	No decomposition if stored and applied as directed.
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10.3 Possibility of hazardous reactions

Hazardous reactions	None known.
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10.4 Conditions to avoid

Conditions to avoid	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.
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10.5 Incompatible materials to avoid

Materials to avoid	Strong acids and oxidizing agents;
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10.6 Hazardous decomposition products

Hazardous decomposition products	No decomposition if stored normally.
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MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

Thermal decomposition Hazardous decomposition products formed under fire conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): LD50 Rat: > 300 - 2.000 mg/kg own test results/literature values Category approach Harmful if swallowed.
Acute inhalation toxicity	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): No data available
Acute dermal toxicity	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): LD50 Rabbit: > 2.000 mg/kg; Category approach own test results/literature values Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Skin irritation	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Rabbit: not irritating own test results/literature values Category approach Based on available data, the classification criteria are not met.
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Serious eye damage/eye irritation

Eye irritation	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Rabbit: May cause irreversible eye damage. Category approach own test results/literature values Causes serious eye damage.
	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Rabbit: irritating Test substance: 20% dilution Causes serious eye irritation.

Respiratory or skin sensitisation

Sensitisation	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Maximisation Test Guinea pig: not sensitizing Category approach (literature value) Based on available data, the classification criteria are not met.
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Germ cell mutagenicity

Genotoxicity in vitro	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): In vitro tests did not show mutagenic effects Category approach own test results/literature values
Genotoxicity in vivo	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): In vivo tests did not show mutagenic effects Category approach (literature value)
Remarks	Alcohols, C16-18, ethoxylated (≥ 2.5 EO):

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

Based on available data, the classification criteria are not met.

Carcinogenicity**Carcinogenicity**

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.
Category approach
(literature value)

Remarks

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Based on available data, the classification criteria are not met.

Reproductive toxicity**Reproductive toxicity**

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
No indications that the substance caused adverse effects on reproductive organs.
Category approach
(literature value)

RemarksReproductive toxicity

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Based on available data, the classification criteria are not met.

Teratogenicity

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Did not show teratogenic effects in animal experiments.
Category approach
(literature value)

Remarks-Teratogenicity

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Based on available data, the classification criteria are not met.

STOT - single exposure**Remarks**

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure**Remarks**

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Rat; Oral; 2 years
NOAEL: 50 mg/kg (based on body weight and day)
Target Organs: Heart, Liver, Kidney
Symptoms: reduced body weight gain, increased relative organ weights
Category approach
(literature value)

Aspiration hazard**Aspiration toxicity**

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Not applicable

Toxicological information

Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
Toxicokinetics
Category approach
The substance is expected to be rapidly absorbed and excreted.
(literature value)

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): LC50 (96 h) Brachydanio rerio (zebrafish): $> 1 - 10$ mg/l ; semi-static test own test results/literature values Category approach
Toxicity to fish - Chronic toxicity	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): No data available
Toxicity to daphnia and other aquatic invertebrates	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): EC50 (48 h) Daphnia magna (Water flea): $> 1 - 10$ mg/l ; static test; own test results/literature values Category approach
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): No data available
Toxicity to aquatic plants	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): EC10 (72 h) algae: 9,5 mg/l ; Growth rate; own test results/literature values; Category approach
Toxicity to bacteria	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): EC50 activated sludge: 140 mg/l; Respiration inhibition Category approach (literature value)
Toxicity to terrestrial flora	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): emergence, growth; NOEC: 10 mg/kg; Lepidium sativum (cress); OECD Test Guideline 208 own test results/literature values Category approach
Toxicity for other terrestrial non-mammalian fauna	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): No data available

12.2 Persistence and degradability

Biodegradability	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301B own test results/literature values Category approach
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12.3 Bioaccumulative potential

Bioaccumulation	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Bioaccumulation is unlikely. (literature value)
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12.4 Mobility in soil

Mobility	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Adsorption/Soil; Koc: > 5000 ; QSAR immobile strong adsorption to soil (literature value)
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12.5 Results of PBT and vPvB assessment

Results of PBT assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Results of PBT assessment	Alcohols, C16-18, ethoxylated (≥ 2.5 EO): Based on available data, the classification criteria are not met. Category approach

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

12.6 Other adverse effects

General advice Alcohols, C16-18, ethoxylated (≥ 2.5 EO):
None known.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Product Can be incinerated, when in compliance with local regulations.

waste code of the European Union: EWC The waste code must be determined in agreement with the regional waste disposal authority or company. A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose.

SECTION 14: TRANSPORT INFORMATION**14.1 UN number**

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods
ICAO/IATA Not dangerous goods

14.2 Proper shipping name

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods
ICAO/IATA Not dangerous goods

14.3 Transport hazard class

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods
ICAO/IATA Not dangerous goods

14.4 Packing group

ADR Not dangerous goods
RID Not dangerous goods
ADN Not dangerous goods
IMDG Not dangerous goods
ICAO/IATA Not dangerous goods

14.5 Environmental hazards

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

14.6 Special precautions for user**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Remarks	No information available.
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SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Occupational restrictions	Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.
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NATIONAL/OTHER REGULATIONS

Legislation on the control of major-accident hazards involving dangerous substances	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. list entry in the directive: Not applicable
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Other regulations	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
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MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

NOTIFICATION STATUS

Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances	INV (CN)	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment**Alcohols, C16-18, ethoxylated (>= 2.5 EO)**

A Chemical Safety Assessment is not required for this substance (exempted from obligation to register).

SECTION 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3.**

H302	Harmful if swallowed.
H318	Causes serious eye damage.

Safety datasheet sections which have been updated:

- 3. Composition/information on ingredients
- 11. Toxicological information

Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
This safety datasheet only contains information relating to safety and does not

MARLIPAL 1618/11

Version: 8.01

Revision Date 23.02.2017

replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC...	Effect concentration ... %
ENCs	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUAPC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC...	Lethal Concentration, ...%
LD...	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse