

SAFETY DATA SHEET

prepared in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals REACH (Official Journal of the European Union No. L 203 of 26.06.2020)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND IDENTIFICATION OF THE COMPANY

1.1 Product identifier

Trade name: CLEANSER IPA , CLEANSER IPA PLUS

Chemical name: Propane -2-ol; Isopropyl alcohol

Index no: 603-117-00-0

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

Identified uses: Product intended for cleaning/washing of electronic devices e.g. cell phones, optical devices, laser readers, magnetic heads.

Uses advised against: Not known.

1.3 Details of the supplier of the safety data sheet

Supplier:

Micro Chip Elektronic Barbara Kaczmarczyk

9 Kochanowskiego St.

40-035 Katowice

Tel. +48 503 017 712

E- mail of the person responsible for the safety data sheet: info@micro-chip.pl

1.4 Emergency telephone number

Emergency phone number in Poland (open from 9:00 a.m. to 3:00 p.m.): + 48 503 017 712

Preparation date: 14.03.2023

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 as amended:

Flammable liquid substances, hazard category 2 (Flam. Liq. 2).

Highly flammable liquid and vapor. (H225)

Serious eye damage/eye irritation, hazard category 2(Eye Irrit. 2).

Causes serious eye irritation. (H319)

Toxic effects on target organs - single exposure, hazard category 3, narcotic effects (STOT SE 3)

May cause drowsiness or dizziness. (H336)

Health hazards:

Irritation, redness, tearing, burning, conjunctivitis may occur with significant concentrations of vapors or direct contact of the product with the eyes. Contamination of the skin with large amounts of the product may cause redness, itching and dryness of the skin. Inhalation of vapors in high concentrations causes pain and dizziness,

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nausea, shortness of breath, respiratory distress, disturbance of consciousness, loss of consciousness. After ingestion, irritation of the gastrointestinal mucosa, nausea, vomiting and diarrhea may occur.

Effects on the environment:

Does not pose a threat to the environment when used correctly

Effects related to physical and chemical properties:

Product vapors are heavier than air, can form explosive mixtures with air. They accumulate near the ground surface and in the lower parts of rooms. Containers exposed to fire or high temperatures may explode.

2.2 Elements of labeling

Pictograms:



Warning slogan: **Danger**

Hazard statements:

H225 - Highly flammable liquid and vapor.

H319 - Irritating to eyes.

H336 - May cause drowsiness or dizziness.

Precautionary statements:

P102 - Keep out of the reach of children.

P210 - Keep away from heat, hot surfaces, sources of spark, open flames and other sources of ignition. Do not smoke.

P261 - Avoid inhalation of vapors.

P304+P340 - IF INHALED: Remove or carry victim to fresh air and provide conditions for free breathing.

P312 - If you feel unwell, contact a POISON CENTER/doctor.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if any and they can be easily removed. Continue to rinse.

P337 + P313 - If eye irritation persists: Seek medical advice/attention.

2.3 Other hazards

The substance does not meet the PBT and vPvB criteria. Not considered an endocrine disrupter according to Article 57(f) of the REACH Regulation or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

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Name	Index no.	CAS no.	EC no.	mass fraction in	%
Propane-2-ol	603-117-00-0	67-63-0	200-661-7	99.99	

Acronyms and abbreviations used in the sheet are given in Section 16 of the safety data sheet.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Remove the affected person from the place of exposure, place in a comfortable semi-reclining or sitting position, ensure calmness, protect from loss of heat. If respiratory distress occurs, apply artificial respiration. If symptoms persist, call a doctor.

Skin contact: Rinse immediately with plenty of water, remove contaminated clothing, wash skin with plenty of soap and water. Consult a doctor if necessary.

Eye contact: Rinse immediately with plenty of lukewarm water, preferably running water, for at least 15 minutes. Remove contact lenses. Avoid strong jets of water due to the risk of mechanical damage to the cornea. If irritation persists, consult an ophthalmologist.

Gastrointestinal tract: If a large amount is swallowed, do not cause vomiting. Rinse the mouth with a large amount of water. If the victim is conscious, give a large amount of water. If necessary, call a doctor.

4.2 Most important acute and delayed symptoms and effects of exposure

In case of significant concentrations of vapors or direct contact of the product with the eyes, irritation, redness, tearing, burning, conjunctivitis may occur. Skin contamination with large amounts of the product may cause redness, itching and drying of the skin. Inhalation of vapors in high concentrations causes headache and dizziness, nausea, shortness of breath, respiratory distress, impaired consciousness, unconsciousness. After ingestion, irritation of the gastrointestinal mucosa, nausea, vomiting and diarrhea may occur.

4.3 Indication of any immediate medical attention and special treatment of the victim.

No special recommendations. Use symptomatic treatment. Make the safety data sheet available to the attending physician.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Foam, carbon dioxide, extinguishing powders, water - dispersed currents.

Unsuitable extinguishing media:

Do not use compact streams of water on the surface of liquids.

5.2 Special hazards associated with the substance or mixture

Carbon monoxide and carbon dioxide may be formed during fire.

5.3 Information for fire fighters

Highly flammable liquid and vapor. Vapors form explosive mixtures with air, are heavier than air and accumulate near the ground and in the lower parts of rooms. Cool exposed containers from a safe distance with a dispersed stream of water (explosion hazard); if possible, remove them from the hazardous area. Wear gas-tight antistatic clothing, insulating respiratory protection equipment.

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SECTION 6: HANDLING IN CASE OF UNINTENTIONAL RELEASE INTO THE ENVIRONMENT

6.1 Personal precautions, protective equipment and emergency procedures.

Ensure adequate ventilation. Wear protective clothing made of natural materials (cotton) or synthetic fibers, gloves made of nitrile or butyl (thickness 0.4 ± 0.05 mm, breakthrough time ≥ 480 min) and safety goggles. Remove sources of ignition (extinguish open flames, announce a ban on smoking and the use of sparking tools). Remove unprotected persons and those not involved in the cleanup from the affected area. Avoid direct contact with the substance. Avoid inhaling of vapors.

6.2 Environmental precautions

Prevent from entering the sewage system, surface and ground water and soil.

6.3 Methods and materials for preventing the spread of contamination and for the removal of contamination.

Secure sewage wells. If possible, eliminate the leak (close the liquid supply, seal). Place the damaged container in a replacement packaging. Dilute vapors with a dispersed stream of water. Remove sources of ignition (extinguish open flames, declare a ban on smoking and use of sparking tools). Absorb small amounts in a chemically inert binding material (sand, diatomaceous earth), transfer to tightly closed containers and send for disposal.

6.4 References to other sections

Dispose of as recommended in Section 13.

SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1 Precautions for safe handling

Ensure adequate general and local ventilation. Keep away from sources of high temperature and sources of ignition. It is advisable to take precautions to avoid contact with skin and eyes when handling the substance. Do not inhale vapors. Prevent from entering the sewage system, surface water and groundwater. Do not eat, drink or smoke during use. Wash hands during breaks and after finishing work. Remove contaminated clothing, wash before wearing again.

7.2 Conditions for safe storage, including information on any incompatibilities.

Store in original, properly labeled, hermetically sealed containers, in a cool, dry, well-ventilated storage room, equipped with explosion-proof electrical and ventilation system. Store away from sources of high temperature, sources of ignition, oxidants. Protect from sunlight.

7.3 Specific end use(s)

No information on uses other than those mentioned in section 1.2.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Legal basis:

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Ordinance of the Minister of Family, Labor and Social Policy of June 12, 2018 on the highest permissible concentrations and intensities of harmful factors for health in the work environment (Journal of Laws, item 1286, 2018); Ordinance of the Minister of Family, Labor and Social Policy of January 9, 2020 amending the Ordinance on the highest permissible concentrations and intensities of harmful factors for health in the work environment (Journal of Laws, item 61, 2020); Ordinance of the Minister of Development, Labor and Technology dated February 18, 2021, amending the Ordinance on maximum permissible concentrations and intensities of harmful factors for health in the work environment (Journal of Laws item 325, 2021).

Name of substance:	CAS no.	Standard Value	unit
Propan-2-ol	67-63-0	ND S	900 mg / m ³
		ND S Ch	1200 mg / m ³
		NDSP (SKIN)	not determined

The notation skin means that the absorption of the substance through the skin may be as important as with inhalation exposure.

Propane-2-ol:

Acute DNEL values for workers:

888 mg/kg (skin) - local

Long-term DNEL values for workers:

500 mg/m³ (inhalation) - local

Acute DNEL values for the general public:

319 mg/kg (skin) - local

Long-term DNEL values for general public:

89 mg/m³ (inhalation) - local

PNEC values:

140.9 mg/l (fresh water)

140.9 mg/l (sea water)

552 mg/l (sediment - fresh and sea water)

28 mg/kg (soil)

8.2 Exposure controls

8.2.1 Appropriate technical control measures

Necessary local exhaust ventilation removing vapors from emission sites and general ventilation of the room. Intake vents of local ventilation at or below the work surface. General ventilation vents in the upper part of the room and at the floor. Ventilation systems must comply with the conditions established due to the danger of fire or explosion. Do not use near sources of high temperature and sources of ignition. Use respiratory protection in case of inadequate ventilation. Provide an eye wash station.

8.2.2 Individual protection measures, such as personal protective equipment

Respiratory tract:	If the permissible concentrations of product vapors are exceeded, use respiratory protection with a particle filter marked white and symbol P2 and a vapor filter marked brown and letter A. AP combination filters may be used.
Hands and skin:	When handling large quantities, use protective clothing made of natural materials (cotton) or synthetic fibers, gloves made of nitrile or butyl (thickness of 0.4 ± 0.05 mm, breakthrough time ≥ 480 min).
Eyes:	Use goggle-type safety glasses.

Industrial hygiene: General industrial hygiene regulations apply. Do not allow the workplace environment to exceed the permissible normative concentrations. After finishing work, remove contaminated

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clothing. Wash hands and face before breaks in work. Wash the whole body thoroughly after work. Do not eat, drink or smoke while working.

8.2.3 Environmental exposure control

Prevent from entering watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) State of matter
Liquid.
- b) Color
Colorless.
- c) Odor
Alcoholic.
- d) Melting/freezing point.
- 88 °C.
- e) Boiling point or initial boiling point and boiling range.
82 - 83 °C.
- f) Flammability of materials
Flammable substance.
- g) Lower and upper explosive limits
Upper: 12% vol.
Lower: 2% vol.
- h) Flash point
12 °C (IP 170)
- i) Auto-ignition temperature
425 °C.
- j) Decomposition temperature
No data.
- k) pH
No data available.
- l) Kinematic viscosity
Dynamic viscosity: 2.43 mPa.s (20 °C).
- m) Solubility
Soluble in water. Readily soluble in most organic solvents.
- n) Partition coefficient n-octanol/water (log ratio value).
0,05.
- o) Vapor pressure
6,020 Pa.
- p) Density or relative density
0.785 - 0.786 at 20 °C (water=1).
- q) Relative vapor density
2 (air = 1).
- r) Particle characteristics
Not applicable

9.2 Other information

9.2.1 Information on physical hazard classes

- (a) Explosives: Not applicable.
- (b) Flammable gases: Not applicable.
- (c) Aerosols: Not applicable.

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- (d) Oxidizing gases: Not applicable.
- (e) Gases under pressure: Not applicable.
- (f) Flammable liquids: Flam. Liq. 2; Highly flammable liquid and vapor.
- (g) Flammable solids: Not applicable.
- (h) Self-reactive substances and mixtures: Not applicable.
- (i) Pyrophoric liquids: Not applicable.
- (j) Pyrophoric solids: Not applicable.
- (k) Self-heating substances and mixtures: Not applicable.
- (l) Substances and mixtures that emit flammable gases in contact with water: Not applicable.
- (m) Liquid oxidizing substances: Not applicable.
- (n) Oxidizing solids: Not applicable.
- (o) Organic peroxides: Not applicable.
- (p) Metal corrosive substances: Not applicable.
- (q) Desensitized explosives: Not applicable.

9.2. 2 Other safety properties

- (a) Mechanical sensitivity: No data.
- (b) Self-accelerating polymerization temperature: No data available.
- (c) formation of explosive dust-air mixture: Not applicable.
- (d) acid/alkaline reserve: No data.
- (e) evaporation rate: no data.
- (f) miscibility: completely miscible with water.
- (g) conductivity: No data.
- (h) corrosive action: No data available.
- (i) gas group: Not applicable.
- (j) redox potential: No data.
- (k) radical formation potential: No data available.
- (l) photocatalytic properties: No data.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Under conditions of storage and handling as intended - no reactivity.

10.2 Chemical stability

Under normal conditions of use and storage, the product is stable.

10.3 Possibility of hazardous reactions

Vapors of the substance with air may form explosive mixtures.

10.4 Conditions to avoid

Sources of ignition, open flame, heat, direct sunlight.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Not known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity:

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

DL50 - oral route, rat: > 5000 mg/kg

DL50 - dermal, rabbit: > 5000 mg/kg

CL50 - inhalation, rat >5 mg/l

Skin corrosion/irritation:

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

Serious eye damage/eye irritation:

Irritating to eyes.

Respiratory or skin sensitization:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

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

Toxic effects on target organs - single exposure: May cause drowsiness or dizziness.

Toxic effects on target organs - repeated exposure: Based on available data, the classification criteria are not met.

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The substance is not considered an endocrine disruptor according to Article 57(f) of REACH or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

11.2.2 Other information

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

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

Dose / value / unit:

CL50 - fish(*Pimephales promelas*) 9640-11130 mg/l (96h).

CL50 - fish(*Carassius auratus*) > 5000 mg/l (24h).

CL50 - fish(*Leuciscus idus melanotus*) 8970-9280 mg/l (48h)

CE50 - invertebrates(*Daphnia magna*) > 10000 mg/l (24h)

CE50 - algae(*Scenedesmus subspicatus*) > 1000 mg/l (72h)

CE50 - bacteria(*Pseudomonas putida*) 1050 mg/l (16h)

CE50 - protozoans(*Entosiphon sulcatum*) 4930 mg/l (72h)

12.2 Persistence and degradability

The substance is readily biodegradable (> 70% after 10 days; > 95% after 28 days, OECD 301 E).

12.3 Bioaccumulative potential

The substance has a low potential for bioaccumulation.

Octanol/water partition coefficient (log Ko/w): 0.05

Bioconcentration factor (BCF): No data available.

12.4 Mobility in soil

No data available.

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12.5 Results of PBT and vPvB assessment

The substance does not meet the PBT and vPvB criteria.

12.6 Endocrine disrupting properties

The substance is not considered an endocrine disruptor according to Article 57(f) of the REACH Regulation or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

12.7 Other adverse effects

No data available

SECTION 13: WASTE TREATMENT

13.1 Waste disposal methods

Do not dispose of the product together with municipal waste, do not discharge into sewage system. Do not allow contamination of ground or surface water.

Hazardous waste*:

HP 3 "Flammable"

HP 4 "Irritant."

HP 5 "Specific target organ toxicity (STOT)".

** COMMISSION REGULATION (EU) No. 1357/2014 of December 18, 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives (Official Journal of the EU, L.365, December 2014).*

Thoroughly empty used packaging. Disposable packaging (after thorough cleaning) recycle.

Special precautions:

Dispose of the product and its packaging in a safe manner. Use caution when handling emptied containers that have not been thoroughly cleaned. Vapors from product residues may create a flammable or explosive atmosphere inside the container. Do not cut or weld used containers if they have not been thoroughly cleaned.

Legal basis:

Announcement of the Speaker of the Sejm of the Republic of Poland of April 16, 2020 on the announcement of the uniform text of the Law on Waste (Journal of Laws, item 797, 2020).

Announcement by the Speaker of the Sejm of the Republic of Poland of December 1, 2022 on the announcement of the uniform text of the Packaging and Packaging Waste Management Act (Journal of Laws, item 160, 2023) REGULATION OF THE MINISTER OF CLIMATE of January 2, 2020 on the waste catalog (Journal of Laws, item 10, 2020).

SECTION 14: TRANSPORT INFORMATION

ADR/RID, IMDG, IATA

14.1 UN number or ID number

1219

14.2 UN proper shipping name

ISOPROPANOL (ISOPROPYL ALCOHOL)

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14.3 Transport hazard class(es)

3

14.4 Packing group

2

14.5 Environmental hazards

The product is not hazardous to the environment according to the criteria of the UN Model Regulations.

14.6 Special precautions for users

Always transport in closed containers that are upright and properly secured. Make sure that those transporting the product know what to do in case of an accident or spill.

14.7 Transportation by sea in bulk in accordance with IMO instruments.

Not applicable.

SECTION 15: INFORMATION ON LEGAL PROVISIONS

15.1 Legal provisions concerning safety, health and environmental protection specific to mixture
ANNOUNCEMENT OF THE MARSHALL OF THE SEJM OF THE REPUBLIC OF POLAND of July 22, 2022 regarding the announcement of the unified text of the Law on chemical substances and their mixtures (Journal of Laws, item 1816, 29.08.2022).

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (EC) No 1272/2008 of December 16, 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006 (Official Journal of the European Union series L No. 353 of December 31, 2008) with subsequent amendments (adaptations to technical progress 1 - 18 ATP).

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (EU) 2016/425 of March 9, 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Official Journal of the EU, series L/81 of March 31, 2016).

Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the highest permissible concentrations and intensities of harmful factors for health in the work environment (Journal of Laws, item 1286, 2018) REGULATION OF THE MINISTER OF FAMILY, LABOR AND SOCIAL POLICY of January 9, 2020 amending the Regulation on the highest permissible concentrations and intensities of harmful factors for health in the work environment (Journal of Laws, item 61, 2020)

Ordinance of the Minister of Development, Labor and Technology of February 18, 2021 amending the Ordinance on maximum permissible concentrations and intensities of harmful factors for health in the work environment (Journal of Laws item 325, 2021).

Regulation of the Minister of Health of February 2, 2011 on tests and measurements of factors harmful to health in the work environment (Journal of Laws No. 33, item 166, 2011).

Notice of the Minister of Health of September 9, 2016 on the announcement of the unified text of the Regulation of the Minister of Health on health and safety at work related to the presence of chemical factors in the workplace (Journal of Laws No. 1488, 2016).

Government Statement of July 26, 2005 on the entry into force of amendments to Annexes A and B of the European Agreement concerning the international carriage of non-hazardous goods by road (ADR) drawn up in Geneva on September 30, 1957 (Journal of Laws No. 178, item 1481, 2005, as amended).

Announcement by the Speaker of the Sejm of the Republic of Poland of April 16, 2020 on the announcement of the uniform text of the Waste Act (Journal of Laws, item 797, 2020).

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Announcement of the Speaker of the Sejm of the Republic of Poland of December 1, 2022 on the announcement of the uniform text of the Act on packaging and packaging waste management (Journal of Laws, item 160, 2023) REGULATION OF THE MINISTER OF CLIMATE of January 2, 2020 on the waste catalog (Journal of Laws, item 10, 2020).

REGULATION (EC) 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of December 18, 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union series L No. 396 of December 30, 2006 as amended).

15.2 Chemical safety assessment

The supplier has not carried out a chemical safety assessment of the substance.

SECTION 16: OTHER INFORMATION

The card was developed at the **Łukasiewicz Research Network - Institute of Industrial Chemistry named after Professor Ignacy Mościcki in Warsaw** on the basis of the recipe and the Material Safety Data Sheet.

The information provided in the safety data sheet is intended to describe the product only from the point of view of safety requirements. The user is responsible for creating the conditions for safe use of the product and it is the user who takes responsibility for the consequences resulting from improper use of this product.

Abbreviations:

NDS - Highest permissible workplace concentration - the highest permissible weighted average concentration, the impact of which on a worker during an 8-hour working period, throughout his working activity, should not cause changes in his health and in the health of his future generations

NDSch - Highest permissible instantaneous concentration - the highest permissible instantaneous concentration established as an average value, which should not cause adverse changes in the state of health of a worker and in the state of health of his future generations, if it persists in the working environment for not more than 30 minutes during the work shift

NDSP - the value of concentration, which, because of the danger to the health or life of a worker, must not be exceeded at any time in the working environment

vPvB - Very Persistent and Very Bioaccumulative substance

PBT - Persistent, Bioaccumulative and Toxic substance

DL50 - Lethal Dose - the dose at which death is observed in 50% of the tested animals within a specified time interval

CL50 - Lethal Concentration - the concentration, at which death is observed in 50% of test animals over a specified time interval

CE50 - Effective concentration - effective concentration of a substance that causes a reaction at 50% of the maximum value

BCF - Bioconcentration factor (bioconcentration) - the ratio of the concentration of a substance in an organism to its concentration in water at equilibrium

ADR- European Agreement on the International Carriage of Dangerous Goods by Road (ADR). *Agreement on Dangerous Goods by Road*)

RID - *Regulations Concerning the International Transport of Dangerous Goods by Rail*

IMDG - *International Maritime Dangerous Goods Code*.

IATA - *International Air Transport Association*

IMO - *International Maritime Organization*

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CAS - the number assigned to the chemical in the *Chemical Abstracts Service* list
EC - the reference number used in the European Union to identify hazardous substances, in particular those registered in the *European Inventory of Existing Chemical Substances (EINECS)*, or the *European List of Notified Chemical Substances (ELINCS)*, or the list of chemicals listed in the publication "*No-longer polymers*"

UN number - the four-digit identification number of the material in the UN list of hazardous materials, derived from the "UN Model Regulations", under which the individual material, mixture or object is classified

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