

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name	: Hydrochloric acid 30%
Chemical name	: hydrochloric acid ... %
EC Index-No.	: 017-002-01-X
EC-No.	: 231-595-7
CAS-No.	: 7647-01-0
REACH registration No	: 01-2119484862-27
Product code	: 99150
Formula	: HCL

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use

Title	Use descriptors
Production, Recovery, Distribution of Product	SU3, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15, ERC1, ERC2
Use as an intermediate	SU3, PROC1, PROC2, PROC3, PROC4, PROC9, ERC6a
Formulation & (re) packaging of substances and mixtures	SU3, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, ERC2
Industrial use	SU3, PROC1, PROC2, PROC3, PROC4, PROC9, PROC10, PROC13, PROC15, PROC19, ERC4, ERC6b
Professional use	SU22, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC10, PROC11, PROC13, PROC15, PROC19, ERC4, ERC6b, ERC8a, ERC8b, ERC8e
Consumers use	SU21, PC20, PC21, PC35, PC37, PC38, ERC8b, ERC8e

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Breustedt Chemie B.V.
Ijsseldijk 28
7325 WZ Apeldoorn - Nederland
T 055-5332844

productinfo@breustedt.nl - www.breustedt.nl

1.4. Emergency telephone number

Emergency number : +31(0)30-2748888 Nationaal Vergiftigingen Informatie Centrum (NVIC)
(uitsluitend bestemd om artsen te informeren bij accidentele vergiftigingen)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1	H290
Skin corrosion/irritation, Category 1	H314
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335

Full text of H statements : see section 16

Specific concentration limits:

(10 =<C < 100)	STOT SE 3, H335
(10 =<C < 25)	Eye Irrit. 2, H319
(10 =<C < 25)	Skin Irrit. 2, H315
(25 =<C < 100)	Skin Corr. 1B, H314

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

GHS07

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H290 - corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.

Precautionary statements (CLP)

: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311 - IF exposed or concerned: Call Poison center.

2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrochloric acid	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-01-X (REACH-no) 01-2119484862-27	30	Met. Corr. 1, H290 Skin Corr. 1, H314 STOT SE 3, H335

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Hydrochloric acid	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-01-X (REACH-no) 01-2119484862-27	(10 =<C < 100) STOT SE 3, H335 (10 =<C < 25) Eye Irrit. 2, H319 (10 =<C < 25) Skin Irrit. 2, H315 (25 =<C < 100) Skin Corr. 1B, H314

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause respiratory irritation.

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

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
Hygiene measures : Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrochloric acid 30% (7647-01-0)	
EU - Occupational Exposure Limits	
IOELV TWA (mg/m ³)	8 mg/m ³ 2000/39/EC
IOELV TWA (ppm)	5 ppm 2000/39/EC
IOELV STEL (mg/m ³)	15 mg/m ³ 2000/39/EC
IOELV STEL (ppm)	10 ppm 2000/39/EC
Netherlands - Occupational Exposure Limits	
Grenswaarde TGG 8H (mg/m ³)	8 mg/m ³ NL WG
Grenswaarde TGG 8H (ppm)	15 ppm NL WG
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	2 ppm

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Hydrochloric acid 30% (7647-01-0)

DNEL/DMEL (Workers)

Acute - local effects, inhalation	15 mg/m ³
Long-term - local effects, inhalation	8 mg/m ³

PNEC (Water)

PNEC aqua (freshwater)	0.036 mg/l
PNEC aqua (marine water)	0.036 mg/l
PNEC aqua (intermittent, freshwater)	0.045 mg/l

PNEC (STP)

PNEC sewage treatment plant	0.036 mg/l
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8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Polyvinylchloride (PVC)	5 (> 240 minutes)			
Disposable gloves	Nitrile rubber (NBR)		0.51		
Disposable gloves	Neoprene rubber (HNBR)	6 (> 480 minutes)	0.46		EN ISO 374

Eye protection:

Chemical goggles or face shield

Type	Use	Characteristics	Standard
Safety glasses		With side shields	EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Device	Filter type	Condition	Standard
Gas mask		Vapour protection	

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless. light yellow.
Odour	: strong. Pungent.
Odour threshold	: No data available
pH	: < 1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -52 °C 30%

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Freezing point	: No data available
Boiling point	: 108 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: > 1500 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 16.4 hPa 20°C,30%
Relative vapour density at 20 °C	: No data available
Relative density	: 1.15 20°C,30%
Density	: 1149.3 kg/m ³ 20°C,30%
Solubility	: Water solubility.
Log Pow	: 0.25
Log Kow	: < 4
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 20 °C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Reageert met basen, oxidatiemiddelen.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Oxidizing agent. Strong acids. metals.

10.6. Hazardous decomposition products

Chlorine. hydrogen. Hydrogen chloride gas.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Hydrochloric acid (7647-01-0)	
LC50 inhalation rat (mg/l)	8.3 - 45.6 mg/l 30 min. / 5 min.
LC50 inhalation rat (ppm)	4701 (gas)30 min.

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: < 1
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: < 1
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Hydrochloric acid (7647-01-0)

LC50 fish 1	282 ml/l
EC50 Daphnia 1	< 56 ml/l

12.2. Persistence and degradability

Hydrochloric acid (7647-01-0)

Persistence and degradability : Not established.

12.3. Bioaccumulative potential

Hydrochloric acid (7647-01-0)

Log Pow	0.25
Log Kow	< 4
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

Hydrochloric acid (7647-01-0)	PBT: not relevant – no registration required vPvB: not relevant – no registration required
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12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a certified waste disposal depot.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 06 01 02* - hydrochloric acid

SECTION 14: Transport information






In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1789	UN 1789	UN 1789	UN 1789	UN 1789
14.2. UN proper shipping name				
HYDROCHLORIC ACID	HYDROCHLORIC ACID	Hydrochloric acid	HYDROCHLORIC ACID	HYDROCHLORIC ACID
Transport document description				
UN 1789 HYDROCHLORIC ACID, 8, II, (E)	UN 1789 HYDROCHLORIC ACID, 8, II	UN 1789 Hydrochloric acid, 8, II	UN 1789 HYDROCHLORIC ACID, 8, II	UN 1789 HYDROCHLORIC ACID, 8, II
14.3. Transport hazard class(es)				
8	8	8	8	8

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14.4. Packing group

II

II

II

II

II

14.5. Environmental hazards

Dangerous for the environment : No

Dangerous for the environment : No
Marine pollutant : No

Dangerous for the environment : No

Dangerous for the environment : No

Dangerous for the environment : No

No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C1
Special provisions (ADR) : 520
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T8
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :

80

1789

Tunnel restriction code (ADR) : E
EAC code : 2R

Transport by sea

Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
IBC special provisions (IMDG) : B20
Tank instructions (IMDG) : T8
Tank special provisions (IMDG) : TP2
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : C
Properties and observations (IMDG) : Colourless liquid. An aqueous solution of the gas hydrogen chloride. Highly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
PCA limited quantity max net quantity (IATA) : 0.5L
PCA packing instructions (IATA) : 851
PCA max net quantity (IATA) : 1L
CAO packing instructions (IATA) : 855
CAO max net quantity (IATA) : 30L
Special provisions (IATA) : A3
ERG code (IATA) : 8L

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Inland waterway transport

Classification code (ADN)	: C1
Special provisions (ADN)	: 520
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: C1
Special provisions (RID)	: 520
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T8
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:		
Reference code	Applicable on	Entry title or description
3.	Hydrochloric acid 30%	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
3(b)	Hydrochloric acid 30%	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

Hydrochloric acid is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Hydrochloric acid is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 238)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

ABM category : B(5) - low hazard for aquatic organisms

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

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Denmark

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
TLM	Median Tolerance Limit
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : H412 applies at concentration > = 25%.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	corrosive to metals.

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H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Full text of use descriptors	
ERC1	Manufacture of substances
ERC2	Formulation of preparations
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC6a	Industrial use resulting in manufacture of another substance (use of intermediates)
ERC6b	Industrial use of reactive processing aids
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8b	Wide dispersive indoor use of reactive substances in open systems
ERC8e	Wide dispersive outdoor use of reactive substances in open systems
PC20	Products such as ph-regulators, flocculants, precipitants, neutralization agents
PC21	Laboratory chemicals
PC35	Washing and cleaning products (including solvent based products)
PC37	Water treatment chemicals
PC38	Welding and soldering products, flux products
PROC1	Use in closed process, no likelihood of exposure
PROC10	Roller application or brushing
PROC11	Non-industrial spraying
PROC13	Treatment of articles by dipping and pouring
PROC15	Use as laboratory reagent
PROC19	Hand-mixing with intimate contact and only PPE available
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
SU21	Consumer uses: Private households (= general public = consumers)
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.