SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006, as amended

DIOXONIC ACID (S066) BE-REG-02281

Version 3.0 Print Date 27.02.2025

Revision date / valid from 26.02.2025

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

1.1. Product identifier

Trade name	:	DIOXONIC ACID (S066) BE-REG-02281
Substance name	:	hydrochloric acid
Index-No.	:	017-002-01-X
CAS-No.	:	7647-01-0
EC-No.	:	231-595-7
REACH Status	:	Each component of the product is either registered or exempted from registration obligations according to REACH Regulation (EC) No 1907/2006

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

Use of the Substance/Mixture	:	Biocides
Uses advised against	:	At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company	:	Brenntag N.V. Nijverheidslaan 38 BE 8540 Deerlijk
Telephone	:	+32 (0)56 77 6944
Telefax	:	+32 (0)56 77 5711
E-mail address	:	info@brenntag.be
Responsible/issuing person	:	Master Data Administration
Company	:	Brenntag Nederland B.V. Donker Duyvisweg 44 NL 3316 BM Dordrecht
Telephone	:	+31 (0)78 65 44 944
Telefax	:	+31 (0)78 65 44 919
E-mail address	:	info@brenntag.nl
Responsible/issuing person	:	Master Data Administration

1.4. Emergency telephone number

Emergency telephone number	:	Belgium: Antipoison Center - Brussels TEL: +32(0)70 245 245

Netherland: National Poisoning Information Center - Bilthoven
TEL: +31(0) 88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	**Hazard category**	**Target Organs**	**Hazard statements**
Corrosive to metals	Category 1	---	H290
Serious eye damage	Category 1	---	H318

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

Most important adverse effects

Human Health	:	See section 11 for toxicological information.
Physical and chemical hazards	:	See section 9/10 for physicochemical information.
Potential environmental effects	:	Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :

Signal word	:	Danger	
Hazard statements	:	H290 H318	May be corrosive to metals. Causes serious eye damage.
Precautionary statements			
Prevention	:	P234	Keep only in original packaging.
Response	:	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.
P390	Absorb spillage to prevent material damage.

2.3. Other hazards

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
hydrochloric acid			
Index-No. : 017-002-01-X CAS-No. : 7647-01-0 EC-No. : 231-595-7 EU REACH-Reg. No. : 01-2119484862-27-xxxx	>= 5 - < 10	Met. Corr.1 Skin Corr.1A Eye Dam.1 STOT SE3 M-Factor (Acute aquatic toxicity): 1 specific concentration limit STOT SE 3; H335 >= 10 % Skin Corr. 1A; H314 >= 25 % Skin Corr. 1B; H314 10 - < 25 % Eye Dam. 1; H318 >= 1 % Met. Corr. 1; H290 >= 0,1 % Note B	H290 H314 H318 H335

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

For the full text of the Notes mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	: Take off all contaminated clothing immediately.
If inhaled	: Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious, place in recovery position and seek medical advice. If symptoms call a physician.
In case of skin contact	: After contact with skin, wash immediately with plenty of water. If symptoms call a physician.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Call a physician immediately.

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

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.
Effects	: See Section 11 for more detailed information on health effects and symptoms.

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

Treatment	: Treat symptomatically.No further information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	: Incomplete combustion may form toxic pyrolysis products.

Hazardous combustion products	:	Carbon monoxide, Carbon dioxide (CO2)

5.3. Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.Wear personal protective equipment.
Further advice	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Keep away unprotected persons. Ensure adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours or spray mist.

6.2. Environmental precautions

Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up	:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal.
	:	Use mechanical handling equipment. Keep in suitable, closed containers for disposal.
Further information	:	Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	:	Keep container tightly closed. Ensure adequate ventilation. Avoid formation of aerosol. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
Hygiene measures	:	Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off

all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Store in original container.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Further information on storage conditions	:	Keep tightly closed in a dry and cool place. Keep in a well-ventilated place.
Advice on common storage	:	Keep away from food, drink and animal feedingstuffs.
Suitable packaging materials	:	Titanium, Synthetic material
Unsuitable packaging materials	:	, metals, Aluminium, Copper, Iron

7.3. Specific end use(s)

Specific use(s)	:	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component:	**hydrochloric acid**	**CAS-No. 7647-01-0**

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL
Workers, Acute - local effects, Inhalation : 15 mg/m3

DNEL
Workers, Long-term - local effects, Inhalation : 8 mg/m3

Predicted No Effect Concentration (PNEC)

Fresh water	:	36 µg/l
Marine water	:	36 µg/l
Intermittent releases	:	45 µg/l
Sewage treatment plant (STP)	:	36 µg/l

Fresh water sediment Exposition is not expected.	:	
Marine sediment Exposition is not expected.	:	
Soil	:	0,036 mg/kg

Other Occupational Exposure Limit Values

EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Time Weighted Average (TWA):
5 ppm, 8 mg/m3
Indicative

EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Short Term Exposure Limit (STEL):
10 ppm, 15 mg/m3
Indicative

Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended, Time Weighted Average (TWA):
5 ppm, 8 mg/m3

Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended, Short Term Exposure Limit (STEL):
10 ppm, 15 mg/m3, (15 minutes)

Netherlands. OELs (binding) per Annex XIII of Working Conditions Regulation, as amended, Short Term Exposure Limit (STEL):
15 mg/m3, (15 minutes)

Netherlands. OELs (binding) per Annex XIII of Working Conditions Regulation, as amended, Time Weighted Average (TWA):
8 mg/m3

EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Time Weighted Average (TWA):
5 ppm, 8 mg/m3
Indicative

EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Short Term Exposure Limit (STEL):
10 ppm, 15 mg/m3
Indicative

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice	:	In case of insufficient ventilation, wear suitable respiratory equipment. When aerosol or mist is formed use suitable respiratory protection. Respiratory protection complying with EN 141. CE-approved mask for acid gases and vapours (type E, yellow)

Hand protection

Advice	:	Protective gloves complying with EN 374. 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. Protective gloves should be replaced at first signs of wear.
Material	:	Nitrile rubber
Break through time	:	> 480 min
Glove thickness	:	> 0,51 mm

Eye protection

Advice	:	Safety goggles

Skin and body protection

Protecting Clothes	:	Wear personal protective equipment.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	Aqueous solution
Physical state	:	liquid
Colour	:	clear
Odour	:	pungent
Odour Threshold	:	No data available
Freezing point	:	No data available
Boiling point/boiling range	:	ca. 108 °C

Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Self-Accelerating decomposition temperature (SADT)	:	No data available
pH	:	< 0,2 Concentration: 10 %
Viscosity		
Viscosity, dynamic	:	ca. 1,16 mPa.s
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Solubility(ies)		
Water solubility	:	completely soluble
Solubility in other solvents	:	Solvent: Alcohol
		Solvent: Acetic acid
		Solvent: Acetone
		Solvent: Benzene
		Solvent: Chloroform
		Solvent: Ether
Dissolution Rate	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Dispersion Stability	:	No data available
Vapour pressure	:	ca. 20 hPa
Relative density	:	No data available

Density	:	1,040 - 1,045 g/cm3
Bulk density	:	No data available
Relative vapour density	:	No data available

Particle characteristics
No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice	:	Reacts with the following substances: Bases Oxidizing agents

10.2. Chemical stability

Advice	:	Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions	:	In contact with metals generates hydrogen gas, which together with air can form explosive mixtures.

10.4. Conditions to avoid

Conditions to avoid	:	Avoid high temperatures.

10.5. Incompatible materials

Materials to avoid	:	Oxidizing agents, Bases

10.6. Hazardous decomposition products

Hazardous decomposition products	:	Hydrogen, Chlorine

SECTION 11: Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

Data for the product		
Acute toxicity		
Oral		
Acute toxicity estimate	:	> 2000 mg/kg) (Calculation method)Based on available data, the classification criteria are not met.
Inhalation		

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

Dermal

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

Irritation

Skin

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

Eyes

Result : Causes serious eye damage.

Sensitisation

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

CMR effects

CMR Properties

Carcinogenicity : Based on available data, the classification criteria are not met.
Mutagenicity : Based on available data, the classification criteria are not met.
Reproductive toxicity : Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity

Single exposure

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

Repeated exposure

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

Component: hydrochloric acid CAS-No. 7647-01-0

Acute toxicity

Oral

LD50 : 2222 mg/kg (Rat) (Calculation method)

Inhalation

LC50 : 45,6 mg/l (Rat, male; 5 min) (No guideline followed)

Dermal

LD50 : > 5010 mg/kg (Rabbit) 31.5 % solution

Irritation		
Skin		
Result	:	corrosive effects (Rabbit; 1 - 4 h) (OECD Test Guideline 404)
Eyes		
Result	:	Causes serious eye damage. (Rabbit) (OECD Test Guideline 405)
Sensitisation		
Result	:	not sensitizing (Guinea pig) (Maximisation Test)
CMR effects		
CMR Properties		
Carcinogenicity	:	Did not show carcinogenic effects in animal experiments.
Mutagenicity	:	In vitro tests did not show mutagenic effects
Teratogenicity	:	No valid data available.
Reproductive toxicity	:	Animal testing did not show any effects on fertility.
Genotoxicity in vitro		
Result	:	negative (Ames test; Salmonella typhimurium; with and without metabolic activation) negative (Cytogenetic test; Mouse; with and without metabolic activation)
Specific Target Organ Toxicity		
Single exposure		
Inhalation	:	Target Organs: Respiratory systemMay cause respiratory irritation.
Repeated exposure		
Remarks	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Other toxic properties		
Repeated dose toxicity		
NOAEC	:	15 mg/m³

(Rat)(Inhalation)

Aspiration hazard

Not applicable,

11.2. Information on other hazards

Data for the product		
Endocrine disrupting properties		
Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component:	hydrochloric acid	CAS-No. 7647-01-0
Endocrine disrupting properties		
Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1. Toxicity

Data for the product		
Acute toxicity		
Short-term (acute) aquatic hazard		
Result	:	Based on available data, the classification criteria are not met.
Chronic toxicity		
Long-term (chronic) aquatic hazard		
Result	:	Based on available data, the classification criteria are not met.

Component:	hydrochloric acid	CAS-No. 7647-01-0
Acute toxicity		

Fish		
LC50	:	20,5 mg/l (Lepomis macrochirus; 24 h)

Toxicity to daphnia and other aquatic invertebrates		
EC50	:	0,45 mg/l (Daphnia magna; 48 h) (OECD Test Guideline 202)

algae		
ErC50	:	0,73 mg/l (Chlorella vulgaris (Fresh water algae); 72 h) (End point: Growth rate; OECD Test Guideline 201)

Bacteria		
EC50	:	0,23 mg/l (activated sludge; 3 h) (End point: Respiration inhibition; OECD Test Guideline 209)

M-Factor		
M-Factor (Acute Aquat. Tox.)	:	1

12.2. Persistence and degradability

Component:	hydrochloric acid	CAS-No. 7647-01-0

Persistence and degradability		
Persistence		
Result	:	The product is water soluble.

Biodegradability		
Result	:	The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Component:	hydrochloric acid	CAS-No. 7647-01-0

Bioaccumulation		
Result	:	Bioaccumulation is not expected.

12.4. Mobility in soil

Component:	hydrochloric acid	CAS-No. 7647-01-0
Mobility		
Soil	:	Not expected to adsorb on soil.
Water	:	The product is water soluble.

12.5. Results of PBT and vPvB assessment

Data for the product		
Results of PBT and vPvB assessment		
Result	:	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.

Component:	hydrochloric acid	CAS-No. 7647-01-0
Results of PBT and vPvB assessment		
Result	:	The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.

12.6. Endocrine disrupting properties

Data for the product		
Endocrine disrupting potential	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component:	hydrochloric acid	CAS-No. 7647-01-0
Endocrine disrupting potential	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

Data for the product		
Additional ecological information		
Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
Component:	**hydrochloric acid**	**CAS-No. 7647-01-0**
Additional ecological information		
Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
Contaminated packaging	:	Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. If recycling is not practicable, dispose of in compliance with local regulations.
European Waste Catalogue Number	:	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

14.1. UN number or ID number

1789

14.2. UN proper shipping name

ADR : HYDROCHLORIC ACID SOLUTION
RID : HYDROCHLORIC ACID SOLUTION
IMDG : HYDROCHLORIC ACID SOLUTION

14.3. Transport hazard class(es)

ADR-Class (Labels; Classification Code; Hazard Identification Number; Tunnel restriction code)	:	8 8; C1; 80; (E)
RID-Class (Labels; Classification Code; Hazard Identification Number)	:	8 8; C1; 80
IMDG-Class	:	8

(Labels; EmS)	8; F-A, S-B

14.4. Packaging group

ADR : III

RID : III

IMDG : III

14.5. Environmental hazards

Environmentally hazardous according to ADR	: no
Environmentally hazardous according to RID	: no
Marine Pollutant according to IMDG-Code	: no

14.6. Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Netherlands : ABM: C (2)

Component:	**hydrochloric acid**	**CAS-No. 7647-01-0**

EU. Chemicals Subject to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended	:	; The substance/mixture does not fall under this legislation.
EU. Regulation 273/2004, Drug Precursors, Category 3	:	Scheduled substance Combined Nomenclature (CN) code: , 2806 10 00; Combined Nomenclature designation
EU. REACH, Annex XVII, Marketing and Use	:	Point Nos.: , 3; Listed

Restrictions (Regulation 1907/2006/EC)		Point Nos.: , 75; Listed
EU. Directive 98/8/EC, Annex 1, Active substances in biocidal products	:	Minimum purity: 999, g/kg; Private area and public health area disinfectants and other biocidal products; Special provisions may apply; see text of legislation. Deadline for Compliance: , 30 Apr 2016 Inclusion Date: , 1 May 2014 Expiry Date of Inclusion: , 30 Apr 2024
EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I	:	; The substance/mixture does not fall under this legislation.

15.2. Chemical safety assessment

The chemical safety assessment of substances from this mixture has been done.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Full text of the Notes referred to under section 3.

Note B	Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: "nitric acid ...%". In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Abbreviations and Acronyms

AU AIICL	Australia. Industrial Chemicals Act (AIIC) List
BCF	bioconcentration factor

BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
DSL	Canada. Environmental Protection Act, Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS (JP)	Japan. Kashin-Hou Law List
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IECSC	China. Inventory of Existing Chemical Substances
INSQ	Mexico. National Inventory of Chemical Substances
ISHL (JP)	Japan. Inventory of Industrial Safety & Health
KECI (KR)	Korea. Existing Chemicals Inventory
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NDSL	Canada. Environmental Protection Act. Non-Domestic Substances List
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
NZIOC	New Zealand. Inventory of Chemicals
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
ONT INV	Canada. Ontario Inventory List
PBT	persistent, bioaccumulative and toxic
PHARM (JP)	Japan. Pharmacopoeia Listing
PICCS (PH)	Philippines. Inventory of Chemicals and Chemical Substances
PNEC	predicted no-effect concentration
REACH Auth. No.:	REACH Authorisation Number
REACH AuthAppC. No.	REACH Authorisation Application Consultation Number
UK REACH Auth. No.:	UK REACH Authorisation Number
UK REACH AuthAppC. No.	UK REACH Authorisation Application Consultation Number
UK REACH-Reg.No	UK REACH Registration Number
STOT	specific target organ toxicity

SVHC	substance of very high concern
TCSI	Taiwan. Existing Chemicals Inventory
TH INV	Thailand. Existing Chemicals Inventory from FDA
TSCA	US. Toxic Substances Control Act
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VN INVL	Vietnam. National Chemical Inventory
vPvB	very persistent and very bioaccumulative

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.

DISTRIBUTOR COMPANY INFORMATION			
name	**BRENNTAG N.V.**	**BRENNTAG NEDERLAND B.V.**	**BRENNTAG SOUTH AFRICA (PTY) LTD**
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Activities	Distribution and export of chemicals and ingredients		
VAT number	BE0405317567	NL001375945B01	4520105356
Emergemcy number (24/365)	+32 (0)56 77 69 44	+31 (0)78 65 44 944	+27 (0)10 0209100
Management systems: certifications	ISO9001, ISO22000, FSSC22000, GMP+Feed, ESAD, RSPO, Rainforest Alliance	ISO 9001, ISO 14001, ISO 22000, ISO22716, FSSC 22000, ISO45001, GMP+ Feed, ESAD, AEO, SKAL, RSPO, Rainforest Alliance	ISO9001, ISO45001, ISO14001, FSSC22000, Certificate of acceptability for Food Premises R638, Ecovadis Stustainability Rating (Platinum), SABS 1827, SABS 1853, B-BBEE, Rainforest Alliance, Sedex