

Vantablack 310 Catalyst

Safety Data Sheet

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date: 12/2/2025 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Trade name : Vantablack 310 Catalyst

1.2. Other means of identification

Other means of identification : Metal Alkoxide Catalyst

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Catalyst has to be mixed with Vantablack 310 paint for application as spray paint in a well-controlled environment under licence and guidance by the manufacturer

1.4. Supplier's details

Manufacturer

SurreyNanosystems Ltd
East Side Business Park, Beach Road
Newhaven, East Sussex, BN9 0FB
United Kingdom
T 01273 515899
technicalsupport@surreynanosystems.com

Distributor

Ellsworth Adhesives
W129 N10825 Washington Drive
Germantown, WI 53022
USA
T +1 800-888-0698

1.5. Emergency phone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 1022366
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquid, Category 3	H226	Flammable liquid and vapor.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H226 - Flammable liquid and vapor
H315 - Causes skin irritation
H318 - Causes serious eye damage

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Precautionary statements (GHS US)

H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof equipment.
Avoid breathing dust, fume, gas, mist, vapors, spray.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective clothing, eye and face protection, protective gloves.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
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 or doctor.
In case of fire: Use appropriate media to extinguish.
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Titanium tetrabutanolate	CAS-No.: 5593-70-4	97	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335
Titanium tetraisopropanolate	CAS-No.: 546-68-9	≤ 5	Flam. Liq. 3, H226 Eye Irrit. 2A, H319 STOT SE 3, H336

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Name	Product identifier	%	GHS US classification
Butan-1-ol	CAS-No.: 71-36-3	< 3	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but, not mouth-to-mouth.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If the victim is unconscious: Lay in a stable manner on victim's side. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. Call a physician immediately.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin areas with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately transport the casualty to an eye doctor / hospital. Continue rinsing during the transport with isotonic saline solution, alternatively with water.
First-aid measures after ingestion	: Rinse mouth and spit the fluids out. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination. Inhalation of vapors may cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation (itching, redness, blistering). Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Stinging, redness, itching, tears, blurred vision, swelling. Possible risk of irreversible effects.
Symptoms/effects after ingestion	: Ingestion may cause nausea and vomiting. Gastrointestinal disturbances.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: IF exposed or concerned: Get medical advice/attention.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard	: Flammable liquid and vapor.
Explosion hazard	: Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Hydrocarbons.

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5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Fight fire with normal precautions from a reasonable distance. Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Evacuate the danger area. If outdoors, move to an area upwind of the danger area. Avoid breathing mist, spray, vapors, gas. If possible without taking personal risks, remove ignition sources, ventilate area. No open flames, no sparks, and no smoking. Prevent other non-emergency personnel from entering the danger area.

For emergency responders

- Protective equipment : Wear the recommended personal protective equipment. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Ventilate spillage area. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. All equipment used when handling the product must be grounded.
- Environmental precautions : Do not let the product reach soil, drains, sewers, or surface and ground water. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

- For containment : Contain with non-combustible inert absorbent.
- Methods for cleaning up : Small spill: Take up in non-combustible inert absorbent and place into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Use non-sparking tools. Contaminated absorbent material may pose the same hazard as the spilt product. Decontaminate surfaces and equipment with water and detergent. Until a sufficient level of dilution is achieved, the decontamination water may pose the same hazards as the product. This material and its container must be disposed of in a safe way, and as per local legislation.

For further information refer to section 8: "Exposure controls/personal protection", For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use only outdoors or in a well-ventilated area. Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe mist, spray, vapors, gas. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use explosion-proof equipment in any process generating vapors, gas air mixtures above the Lower Explosive Limit (refer to Section 9). Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store in a cool, dry and well-ventilated area away from incompatible substances. Keep only in original container. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container closed when not in use. Stored containers should be periodically checked for general condition and leakage.

Incompatible products : Oxidizing agents. Strong bases. Strong acids.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Butan-1-ol (71-36-3)

USA - ACGIH - Occupational Exposure Limits

Local name	n-Butanol (n-Butyl alcohol)
ACGIH® TLV® TWA	61 mg/m ³
	20 ppm
Remark (ACGIH®)	TLV® Basis: Eye & URT irr
Regulatory reference	ACGIH 2025

USA - OSHA - Occupational Exposure Limits

Local name	n-Butyl alcohol
OSHA PEL TWA	300 mg/m ³
	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

USA - NIOSH - Occupational Exposure Limits

Local name	n-Butyl alcohol
NIOSH REL C	50 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Use general ventilation, local exhaust ventilation, or process enclosure to keep the airborne concentrations below the permissible exposure limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

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Hand protection:

Wear protective gloves. 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. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Type	Material	Permeation	Thickness (mm)	Penetration
	Fluorocarbon rubber	6 (> 480 minutes)	> 0.7mm	
	Butyl rubber	6 (> 480 minutes)	> 0.4mm	
	Nitrile rubber	6 (> 480 minutes)	> 0.4mm	

Eye protection:

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles

Skin and body protection:

Wear suitable protective clothing. Antistatic clothing. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Use NIOSH approved respirator if ventilation is inadequate. SCBA for emergency responders. Must be used in accordance with an OSHA compliant respiratory protection program.

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Light yellow
Odor	: Alcohol-like
Odor threshold	: No data available
pH	: No data available
Melting point	: -50 °C / -58 °F
Freezing point	: -70 °C / -94 °F
Boiling point	: 312 °C / 693.6 °F @ 1.013 hPa
Flash point	: 40 °C / 104 °F
Flammability (solid, gas)	: No data available
Vapor pressure	: 0.02 kPa @ 21 °C / 69.8 °F
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.991 – 1.001 g/ml @ 20 °C / 68 °F
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 300 – 319 °C / 572 - 606.2 °F
Viscosity, kinematic	: 59.94 – 60.545 mm ² /s
Viscosity, dynamic	: 60 mPa·s @ 25 °C / 77 °F

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Explosion limits : Lower explosion limit: 2 vol %
Upper explosion limit: 12 vol %
Particle characteristics : No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

High temperatures may produce vapors and/or fumes. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.
Incompatible materials.

10.5. Incompatible materials

Strong acids. Strong bases. Strong reducing agents. Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition generates: Hydrocarbons. Carbon dioxide. Carbon monoxide.

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

Titanium tetrabutanoate

LD50 oral rat	3120 mg/kg
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Butan-1-ol

LD50 oral rat	2290 mg/kg
LD50 dermal rabbit	3430 mg/kg
LC50 Inhalation - Rat (Vapors)	> 17.76 mg/l/4h

Titanium tetraisopropanoate

LD50 oral rat	7500 mg/kg body weight
LD50 dermal rabbit	15200 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye damage.

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Butan-1-ol	
Serious eye damage/irritation, rabbit	Corrosive
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness. May cause respiratory irritation.
Titanium tetrabutanolate	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
Butan-1-ol	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
Titanium tetraisopropanolate	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
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Viscosity, kinematic	59.94 – 60.545 mm ² /s
Symptoms/effects after inhalation	: Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination. Inhalation of vapors may cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation (itching, redness, blistering). Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Stinging, redness, itching, tears, blurred vision, swelling. Possible risk of irreversible effects.
Symptoms/effects after ingestion	: Ingestion may cause nausea and vomiting. Gastrointestinal disturbances.

SECTION 12 Ecological information

12.1. Ecotoxicity

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

Butan-1-ol	
LC50 - Fish [1]	1376 mg/l
EC50 - Crustacea [1]	1328 mg/l
EC50 96h - Algae [1]	225 mg/l
ErC50 algae	225 mg/l
NOEC (chronic)	4.1 mg/l
NOEC chronic crustacea	4.1 mg/l
Titanium tetraisopropanolate	
EC50 - Crustacea [1]	590 mg/l
EC50 72h - Algae [1]	> 820 mg/l
EC50 72h - Algae [2]	400 mg/l

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12.2. Persistence and degradability

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Persistence and degradability Not established.

Titanium tetrabutanolate

Persistence and degradability Not rapidly degradable

Butan-1-ol

Persistence and degradability Not rapidly degradable

Titanium tetraisopropanolate

Persistence and degradability Not rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions.
Additional information : Flammable vapors may accumulate in the container. Do not re-use empty containers.
Ecological waste information : Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
UN1993	1993	1993
14.2. Proper Shipping Name		
Flammable liquids, n.o.s. (Titanium tetrabutanolate ; Butan-1-ol)	FLAMMABLE LIQUID, N.O.S. (Titanium tetrabutanolate ; Butan-1-ol)	Flammable liquid, n.o.s. (Titanium tetrabutanolate ; Butan-1-ol)
14.3. Transport hazard class(es)		
3	3	3
14.4. Packing group		
III	III	III

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DOT	IMDG	IATA
14.5. Environmental hazards		
	Dangerous for the environment: No Marine pollutant: No	
No supplementary information available		

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT	
UN-No. (DOT)	: UN1993
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

IMDG	
Special provision (IMDG)	: 223, 274, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER
Stowage category (IMDG)	: A

IATA	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
ERG code (IATA)	: 3L

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

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Butan-1-ol	CAS-No. 71-36-3	< 3%
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Butan-1-ol (71-36-3)

CERCLA RQ	5000 lb
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15.2. International regulations

CANADA

Titanium tetrabutanolate (5593-70-4)

Listed on the Canadian DSL (Domestic Substances List)

Butan-1-ol (71-36-3)

Listed on the Canadian DSL (Domestic Substances List)

Titanium tetraisopropanolate (546-68-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Titanium tetrabutanolate (5593-70-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Butan-1-ol (71-36-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Titanium tetraisopropanolate (546-68-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Butan-1-ol(71-36-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

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Full text of hazard classes and H-statements

H226	Flammable liquid and vapor
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Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

Abbreviations and acronyms	
ACGIH	American Conference of Government Industrial Hygienists
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
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
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
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration

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Abbreviations and acronyms	
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organization for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

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.