Safety Data Sheet

according to 1907/2006/EC, Article 31, (Commission Regulation (EU) 2020/878)

Trade name: **Azelaic Acid** Version: 8 Revision: 2024.07.18

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

1.1 Product identifier

Trade name	**Azelaic Acid**
CAS number	**123-99-9**
EC number	**204-669-1**

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

Product category PC39 Cosmetics, personal care products

Process category PROC 1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC 2: Use in closed, continuous process with occasional controlled exposure.
PROC 3: Use in closed batch process (synthesis or formulation).
PROC 5: Mixing or blending in batch processes.
PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities.
PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities.
PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing).
PROC 14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation.
PROC 15: Use as laboratory reagent

Environmental release category ERC 2: Formulation into mixture

Application of the substance / the mixture
Cosmetic
Skin cosmetics
Cosmetic Active Agent
Cosmetic auxiliary

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier
CORUM INC.
6FL., No.360, Ruei Guang Rd.,
Neihu Dist., Taipei 114729, Taiwan
Further information obtainable from
marketing.support@corum.com.tw

1.4 Emergency telephone number

Company phone number CORUM Tel. 886-2-8751-6060
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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Eye Dam. 1	H318 Causes serious eye damage.
Skin Irrit. 2	H315 Causes skin irritation.

2.2 Label elements

Label according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
Hazard Pictograms

GHS05
Signal word
Danger
Hazard statements
H315 causes skin irritation.
H318 Causes serious eye damage.
Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash thoroughly after handling.
P302+P352	If on skin: wash with plenty of 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.
P310	Immediately call a POISON CENTER/doctor.
P332+P313	If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT:
Based on available data, the ingredients of this mixture do not meet the PBT criteria (not PBT) according to (EC) 1907/2006, Annex XIII.
vPvB:
Based on available data, the ingredients of this mixture do not meet the vPvB criteria (not vPvB) according to (EC) 1907/2006, Annex XIII.
Determination of endocrine-disrupting properties
The product does not contain ingredients with endocrine-disrupting properties for humans.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Composition/information on ingredients

Name	Chemical name	Identification	Classification	SCLs, M-Factors	%
COMPONENT					
Azelaic Acid	Nonanedioic acid	(CAS No.) 123-99-9 (EC No.) 204-669-1	Skin Irrit. 2 H315 Eye Dam. 1 H318	Skin Irrit. 2; H315: C ≥ 50 %	100%

3.2 Mixtures

Not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
Seek medical treatment.

After inhalation
If breathing, move person into fresh air. If not breathing, give artificial respiration. Get medical attention.

After skin contact
Immediately rinse with water. Remove contaminated clothing, contaminated footwear and dispose of safely. Wash clothing before reuse. If symptoms occur, seek medical attention.

After eye contact
Call a doctor immediately. Immediately flush eyes with copious amounts of water for at least 15 minutes. Check for and remove any contact lenses. Do not let the victim rub eyes. Keep eye wide open while rinsing.

After swallowing
Do not induce vomiting; call for medical help immediately. Rinse mouth with plenty of water. If a person is vomiting while laying on his back, place him in the recovery position (turned onto his side).

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
Causes serious eye damage.
Temporary skin irritation (pruritus, burning or and stinging).

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians
Treatment should be in general symptomatic to relieve any effects. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:
Use fire extinguishing methods suitable to surrounding conditions.
SMALL FIRE: Dry powder or carbon dioxide (CO2) extinguisher, dry sand or fire fighting foam.
LARGE FIRE: Use water spray, water fog or foam. DO NOT use direct water jet.
For safety reasons unsuitable extinguishing agents:
Water with full jet.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:
Carbon oxides (COX)
Carbon monoxide (CO)

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Additional Information

Combustible powder.
Cool endangered receptacles with water spray.
See section 9: information on powder explosibility.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothes.
Ensure adequate ventilation.
Avoid formation of dust.
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep unnecessary and unprotected personnel from entering.
Avoid contact with the spilled material. Do not touch or walk through spilled material.
Stop or contain leak at the source if safe to do so.

6.2 Environmental precautions

Prevent from seepage into the sewerage system/surface water/groundwater; do not let the product enter drains.
Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up

Use non-sparking tools.
* Small spillage:
Pick up mechanically. Clean the area with water.
Clean the area with water.
Dispose of the material collected according to regulations.
* Large spillage:
Large spills may be shoveled into containers.
Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the wastewater collection system. Keep in suitable, closed containers for disposal.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 7 for information on safe handing.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Advice on safe handling

Prevent formation of dust.
Avoid contact with the skin, eyes and clothing.
Wear recommended personal protective equipment.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Do not eat, drink or smoke when using this product.

Information about fire - and explosion protection:

Protect from heat.

Keep ignition sources away - Do not smoke.
Use explosion-proof apparatus / fittings and spark-proof tools.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions Protect from contacting with light, heat and moisture.
Store in tightly closed container at 25°C in a dry place.

Incompatible materials Store away from oxidizing agents.

Storage class (VbF) No

Requirements to be met by storerooms and receptacles
No special measures required.

Information about storage in common storage facility
Store away from oxidising agents.

Further information about storage conditions
Store only in unopened original receptacles.
Store in a cool location.
Keep container tightly sealed.
Protect from heat and direct sunlight.
Protect from humidity and water.
Protect from frost.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace

Exposure limits Not required

DNEL

CAS: 123-99-9 azelaic acid		
Oral	DNEL systemic effects, long-term	2.5 mg/kg bw/day (population)
Dermal	DNEL systemic effects, long-term	5 mg/kg bw/day (population) 10 mg/kg bw/day (workers)
Inhalative	DNEL systemic effects, long-term	4.348 mg/m³ (population) 17.632 mg/m³ (workers)

PNEC

CAS: 123-99-9 azelaic acid	
PNEC water (freshwater)	0.02 mg/L (Freshwater invertebrates)
PNEC water (marine water)	0.002 mg/L (Marine water invertebrates)
PNEC sediment (marine water)	0.00931 mg/kg sed dw (marine water sediment organisms)
PNEC soil	0.00687 mg/kg soil dw (soil micro-organisms)
PNEC STP	912 mg/L (Micro-organisms)
PNEC water (int releases)	0.16 mg/L (Fish)

Additional information The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls

Applying good personal hygiene practices, such as the proper handling of contaminated clothing, the use of washing facilities before entering public areas, and the restriction of eating, drinking, and smoking in designated areas are essential to prevent chemical contamination.
If user operations generate dust, fume or mist, use local exhaust ventilation or other engineering controls to keep exposure to airborne contaminants below the exposure limit.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures

Assumes a good basic standard of occupational hygiene is implemented.
Do not inhale dust / smoke / mist.
Avoid contact with the eyes and skin.
All skin and mucous membranes with potential exposure have to be protected with appropriate
PPE.
Keep the work area clean.

Personal protective equipment

Respiration protection

Use suitable respiratory protective device in case of insufficient ventilation. Recommended exposure limits have not been established for this material. Whether there is a need for respiratory protection under court conditions of handling of this material should be evaluated by a qualified health specialist.

Hands protection

Protective gloves 

The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection	Tightly sealed goggles Wear safety glasses meeting the specifications of ANSI standard Z87.1 where no contact with the eye is anticipated. Chemical safety goggles meeting the specifications of ANSI standard Z87.1 should be worn whenever there is the possibility of splashing or other contact with the eyes.
General protective measure	Avoid contact with the eyes and skin. Do not inhale dust/smoke/mist.
General hygiene measure	All skin and mucous membranes with potential exposure have to be protected with appropriate PPE. Impervious protective clothing
Environmental exposure controls	No further relevant information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical State	Powder
Appearance	White fine powder
Color	White
Odor	Characteristic
Oder threshold	Not determined

Property	
pH value (5%)	Not determined
Melting point/Melting range	105-109 °C (peer-reviewed literature)
Boiling point/Boiling range	357.1 °C (peer-reviewed literature)
Flash point	180 °C (Open cup)
Flammability (solid, gaseous)	Substance is not flammable.
Ignition temperature	Not determined
Decomposition temperature	Not determined
Self-igniting	Not determined
Danger of explosion	Product does not present an explosion hazard.
Explosion limit	
Lower	50 g/m³ (0.75 micron powder)
Upper	Not determined
Oxidizing properties	Not determined
Explosive properties	Not determined
Vapor pressure at 25℃	<1.33E-4 hPa (peer-reviewed database)
Vapor density	Not applicable. The product is a solid.
Density at 25 °C	1225 kg/m³ (peer-reviewed literature)
Density at 110 °C	1.03 g/cm³
Relative density	Not determined
Evaporation rate	Not determined
Solubility	
water at 20 °C:	2.4 g/l (peer-reviewed literature)
alcohols at 20 °C:	N.D. g/l (SOLUBLE)
Partition coefficient (n-octanol/water at 20 °C)	1.57 log POW (peer-reviewed database)
Kinematic Viscosity	Not applicable. The product is a solid.

Dynamic Viscosity	Not applicable. The product is a solid.
Particle characteristics	See granulometry.

9.2 Other information

Important information on protection of health and environment, and on safety

Explosive properties	The product is not explosive.
Softening point/range	Not applicable
Oxidising properties	According to the structure, this substance has no oxidizing properties.

Information with regard to physical hazard classes

Explosives	Not applicable
Flammable Gases and Chemically Unstable Gases	Not applicable
Flammable Aerosols	Not applicable
Oxidising Gases	Not applicable
Gases Under Pressure	Not applicable
Flammable Liquids	Not applicable
Flammable Solids	Not applicable
Self-reactive Substances and Mixtures	Not applicable
Pyrophoric Liquids	Not applicable
Pyrophoric Solids	Not applicable
Self-heating Substances and Mixtures	Not applicable
Substances and Mixtures which in contact with water emit flammable gases	Not applicable
Oxidising Liquids	Not applicable
Oxidising Solids	Not applicable
Organic Peroxides	Not applicable
Substances and Mixtures corrosive to Metals	Not applicable
Desensitized Explosives	Not applicable
Surface tension	Not applicable
Dissociation constant	pKa: 4.55 International Union of Pure and Applied chemistry London: Butterworth (1961), cited in HSDB
Granulometry	Maximum particle diameter 15 µm
Additional information	Azelaic acid powder explosibility data (test results for 0.75 micron powder) Minimum oxygen for combustion (MOC): 11.59 % Minimum Ignition Energy: 5-10 mJ Maximum explosion pressure (Pmax): 7.7 bar Maximum rate of pressure rise (DP/DT Max): 665 bar/sec

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2 Chemical stability

Thermal decomposition/conditions to be avoided:

No decomposition if used according to specifications.
Generally stable.

10.3 Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

10.4 Conditions to avoid
Dust generation.
Protect from contacting with light, heat and moisture.

10.5 Incompatible materials
Strong oxidizing agents.

10.6 Hazardous decomposition products
No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Name	Azelaic Acid CAS:123-99-9
Acute toxicity	*According to DSD (67/548/EEC) or CLP (1272/2008/EC) classification criteria for acute toxicity, azelaic acid does not fulfill the criteria for classification and thus a non-classification is warranted for this endpoint. *Oral, LD50 >10,000 mg/kg bw (rat) *Oral, LD50 >2,000 mg/kg bw (rat) Read-across from CAS 334-48-5 and CAS 124-07-2 * Dermal, LD50 (static): >2,000 ml/ kg bw (rabbit) Read-across from EC 57-11-4 * Inhalative, LC50/4 h >0.1521 mg/L /air (rat) Read across from CAS 124-07-2
Skin corrosion/irritation	*H315 Irritant to skin *Skin irritation has been reported in exposure to animals and workers handling azelaic acid (peer reviewed database). Bingham, E.; Cohrssen, B.; Powell, C.H.; Patty's Toxicology Volumes 1-9 5th ed. ohn Wiley & Sons. New York, N.Y. (2001)., p. 5:772] Classification by analogy to substances of similar structure. CAS number: 68937-75-7 Method: equivalent or similar to OECD Test Guideline 404 (Acute skin irritation/corrosion) Species: Rabbit Cutaneous compatibility is very good. (dilution at 10% and 20%)
Serious eye damage/irritation	*H318 Causes serious eye damage. OECD Guideline 437 (Bovine Corneal Opacity and Permeability Test Method for Identifying i) Chemicals Inducing Serious Eye Damage and ii) Chemicals Not Requiring Classification for Eye Irritation or Serious Eye Damage). Azelaic acid induced a mean IVIS > 55, concluding that it induces serious eye damage in the Bovine Corneal Opacity and Permeability test. Therefore, it is classified as Cat. 1
Respiratory/skin sensitization	* Based on available data, the classification criteria are not met. Method study: equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Respiratory tract	Not determined
Toxicokinetics, metabolism and distribution	*Azelaic acid is excreted through urine (mean of 76.9% of and distribution infused dose). Reported in HDSB, Bertuzzi A et al; Clin Pharmacokinet 20 (5):411-9 (1991)

Repeated dose toxicity	* Based on available data, the classification criteria are not met. Read-across from structural analogue CAS 112-85-6. *Oral, NOAEL Rep. Dose 1,000 mg/kg bw/d (rat) (Combined Rep.Dose - Screening Repr./Dev.Tox Test) Read-across from CAS 112-85-6
Germ Cell mutagenicity	* Based on available data, the classification criteria are not met. Read-across from available studies with analogue substances (fatty acids, category approach) Negative findings in bacterial reverse mutation test (Ames test OECD 471), chromosome aberration test (OECD 473) and gene mutation test in mammalian cells (OECD 476)
Carcinogenicity	No further relevant information available.
Reproductive toxicity	* Based on available data, the classification criteria are not met. *Oral, NOAEL (repr) 1,000 mg/kg bw/day (rat) (Combined Rep.Dose - Screening Repr./Dev. Tox Test) Read-across from CAS 112-85-6
STOT-single exposure	*Based on available data, the classification criteria are not met.
STOT-repeated exposure	*Based on available data, the classification criteria are not met.
Aspiration hazard	*Based on available data, the classification criteria are not met.

*from ECHA webpage registration data

11.2 Information on toxicological effects

Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties for humans.

SECTION 12: ECOLOGICAL INFORMATION

Name	Azelaic Acid CAS:123-99-9
12.1 Toxicity Aquatic toxicity	*Based on available data, the classification criteria are not met. *LC50/48h (static): 1,586 mg/L (Daphnia sp.) (Predicted by ECOSAR v 1.11) *EC10 (static): 912 mg/L (Pseudomonas putida) (equivalent or similar to ISO 10712 with CAS 124-07) *LC50/96 h: 2,872 mg/L (fish) (Predicted by Ecosar v 1.11) *LC50/96 h >16 mg/L /meas. (geom (Oryzias latipes) (OECD 203 Fish, Acute Toxicity Test) Read across from EC 334-48-5 *EC50/48h >20 mg/L /based on mo (Daphnia sp.) (OECD 202 Daphnia sp. Acute Immobilisation Test) Read-across from CAS 334-48-5 *EC50/72h >67 mg/L /meas. TWA (Pseudokirchneriella subcapitata) (OECD 201 Algae, growth inhibition test) *EC50/96h: 1,053 mg/L (algae) (Predicted by ECOSAR v 1.11) *ChV: 259 mg/L (algae) (Predicted by ECOSAR v 1.11) 143 mg/L (Daphnia sp.) (Predicted by ECOSAR v 1.11) 271 mg/L (fish) (Predicted by ECOSAR v 1.11) *NOEC (28d) (dynamic): 2 mg/L /based on mort (Danio rerio) (OECD 305 E Bioaccumulation: Flowthrough Fish Test) Read-across from CAS 629-25-4 *NOEC/21d (static): 0.2 mg/L /semi-static (Daphnia sp.) (OECD 211 Daphnia magna Reproduction Test) Read-across from CAS 334-48-5

12.2 Persistence and degradability	*Readily biodegradable. *Based on ready bidodegradability studies with strucutral analogues (category approach: fatty acids). Degree of degradability: 105 % in 30 days (closed bottle test, OECD 301D). The substance does not contain chromophores that absorb at wavelengths > 290 nm and therefore is not expected to be susceptible to direct photolysis by sunlight.
12.3 Bioaccumulative potential	*Literature data of a similar substance: C12 fatty acid sodium laurate *BCF: 225 L/kg after 28 days exposure (OECD TG 305 E) *The estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low.
12.4 Mobility in soil	*log Koc: 1.02 (prediction KOCWIN v. 2.00, MCI-method) If released to soil, the substance is expected to have moderate mobility based upon an estimated Koc of 10.57. The pKa of the substance is 4.55, indicating that this compound will exist almost entirely in the anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts.
12.5 Results of PBT and vPvB assessment	**PBT:** Not applicable **vPvB:** Not applicable
12.6 Endocrine disrupting properties	The product does not contain substances with endocrine disrupting properties for aquatic organisms.
12.7 Other adverse effects	*Water hazard class 1 (Assessment by list): slightly hazardous for water (alternative regulation). *Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. *Must not reach sewage water or drainage ditch undiluted or unneutralised.

*from ECHA webpage registration data

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation Observe all federal, state and local environmental regulations- Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

HP4 Irritant - skin irritation and eye damage

13.2 Uncleaning packaging

Recommendation Disposal must be made according to official regulations.

Recommended cleansing agents Water, if necessary together with cleansing agents.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

ADR/RID Not applicable

ADN Not applicable

IMDG Not applicable

IATA Not applicable

14.2 UN proper shipping name

ADR/RID Not applicable

ADN Not applicable

IMDG	Not applicable
IATA	Not applicable

14.3 Transport hazard class(es)

ADR/RID	Not applicable
ADN	Not applicable
IMDG	Not applicable
IATA	Not applicable

14.4 Packing group

ADR/RID	Not applicable
ADN	Not applicable
IMDG	Not applicable
IATA	Not applicable

14.5 Environmental hazard

Marine pollutant	No

14.6 Special precautions for user

Special precaution for user	Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 ICAO/IATA – DGR

Not regulated as dangerous good.

14.9 Maritime transport in bulk according to

IMO instruments	Not applicable
UN "Model Regulation"	Not applicable

SECTION 15: REGULATORY INFORMATION

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

Name	Azelaic Acid CAS:123-99-9
Inventory - United States - Toxic Substances Control Act (TSCA)	Y
Inventory - Canada - Domestic Substances List (DSL)	Y
Inventory - Canada - Non-Domestic Substances List (NDSL)	N
Inventory - Canada - Revised In Commerce List (R-ICL)	N
ECHA Inventory of substances	Y
Japan Existing and New Chemical Substances (ENCS)	Y
Inventory of Existing Chemical Substances in China (IECSC)	Y
Korean Existing and Evaluated Chemical Substances (KECL)	Y
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Y
Australian Inventory of Industrial Chemicals (AIIC)	Y
New Zealand Inventory of Chemicals	Y

TCSI - Taiwan Chemical Substance Inventory	**Y**
OECD - List of High Production Volume Chemicals	**N**

Y : listed, N : not listed, E : exempted

Directive 2004/42/EC
Seveso category
Substance is listed.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II
Substance is not listed.

Regulation (EU) 2019/1148
Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))
Substance is not listed.
Annex II - REPORTABLE EXPLOSIVES PRECURSORS
Substance is not listed.

Regulation (EC) No 273/2004 on drug precursors
Substance is not listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
Substance is not listed.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer - ANNEX I (Ozone-depleting potential)
Substance is not listed.

National regulations
Other regulations, limitations, and prohibitive regulations
Not determined

Substances of very high concern (SVHC) according to REACH, Article 59(10)
Substance is not listed.

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

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Abbreviations and acronyms

NOAEL: Non Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
NOEC: No Observed Effect Concentration
GHS: Globally Harmonized System of Classification and Labeling Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstract Service (division of the American Chemical Society)
VbF: Ordinance on the storage of combustible liquids, Austria
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
SVHC: Substances of Very High Concern
PBT: Persistent Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
STOT: Specific Target Organ Toxicity
ADR: Agreement on Dangerous Goods by Road
RID: Regulations concerning the Intl Transport of Dangerous Goods by Rail
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association
BCF: Bioconcentration Factor
ChV: Fish Chronic Toxicity Value

Sources

Own data from manufacture
Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system (http://toxnet.nlm.nih.gov)
REACH Registration data