



BRILLANT perfect

WM 0712601

Order number: 0712601

Version 6.10

Revision Date 06.04.2023

Print Date 18.05.2023

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

1.1 Product identifier

Trade name : BRILLANT perfect
UFI : W155-S08F-S00D-2QM2

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

Use of the Substance/Mixture : Rinse aid
Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : Tana Chemie GmbH
Rheinallee 96
55120 Mainz
Telephone : +49613196403
Telefax : +4961319642414
E-mail address : Produktsicherheit@werner-mertz.com
Responsible/issuing person
Contact person : Product development / product safety

1.4 Emergency telephone number

112
Centru za kontrolu otrovanja u Zagrebu na tel. (01) 2348 342
+49(0)6131-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : P102 Keep out of reach of children.

Prevention:

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.



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Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Disposal:

P501 Dispose of container into the collection of recyclables only when it is completely empty.

Safety data sheet available on request.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous solution

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
ethanol	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319 <hr/> specific concentration limit Eye Irrit. 2; H319 >= 50 %	>= 5 - < 10
modified fatty alcohol polyglycol ether	501019-90-5	Eye Irrit. 2; H319 Aquatic Chronic 3; H412	>= 5 - < 10
D-Glucopyranose, oligomers, decyl octyl glycosides	68515-73-1 500-220-1 01-2119488530-36	Eye Dam. 1; H318 <hr/> specific concentration limit Eye Dam. 1; H318 > 10 % Eye Irrit. 2; H319 10 %	>= 2 - < 3
citric acid	77-92-9 201-069-1 01-2119457026-42	STOT SE 3; H335 Eye Irrit. 2; H319	>= 1 - < 2

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.



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- Consult a physician.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Protect unharmed eye.
If easy to do, remove contact lens, if worn.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Irritation
- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralize with chalk, alkali solution or ammonia.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Vapours may form explosive mixtures with air.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Rinse aid



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye/face protection : If splashes are likely to occur, wear:
Tightly fitting safety goggles

Hand protection

Material : For prolonged or repeated contact use protective gloves.
It is suggested the usage of chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.
As alternative, a different type of gloves might be used if, accordingly to the recommendations of the producer, guarantee the same level of protection.

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : not required under normal use

Respiratory protection : Not required; except in case of aerosol formation.
Recommended Filter type:
ABEK-P3-filter

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid



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Colour	: colourless
Odour	: characteristic
Odour Threshold	: No data available
pH	: ca. 2,8, 100 % at 20 °C
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: 47,1 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Flammability (liquids)	: Not classified as supporting combustion according to the transport regulations.
Burning rate	: No data available
Lower explosion limit	: Lower explosion limit at 45,0 °C Method: ISO 2719
Upper explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 1,003 g/cm ³ at 20 °C
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2 Other information

none



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SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No decomposition if used as directed.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Our company is strongly against animal testing.
Our company does not place any orders for animal testing for the finished product or the ingredients.
However, as a result of EU legislation (REACH Regulation), the manufacturers of ingredients or EU importers are obliged to test ingredients with regard to their effects on human health and the environment before they are brought onto the market. Some of the tests made necessary by this took place decades ago.

Acute toxicity

Acute toxicity : Not Rated

Components:

ethanol

ALCOHOL:

Acute oral toxicity : LD50 Oral (Rat): 10.470 mg/kg
Method: OECD Test Guideline 401

LD50 (Rat): 5.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 51 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402

LD50 Dermal (Rabbit): > 10.000 mg/kg
Method: OECD Test Guideline 402



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modified fatty alcohol polyglycol ether

501019-90-5:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

D-Glucopyranose, oligomers, decyl octyl glycosides

CAPRYLYL/CAPRYL GLUCOSIDE:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402

citric acid

CITRIC ACID:

Acute oral toxicity : LD50 Oral (Mouse): 5.400 mg/kg
Method: OECD Test Guideline 401

LD50 Oral (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Remarks : According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Components:

ethanol

ALCOHOL:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

D-Glucopyranose, oligomers, decyl octyl glycosides

CAPRYLYL/CAPRYL GLUCOSIDE:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Mild skin irritation

Serious eye damage/eye irritation

Product:

Remarks : Causes serious eye irritation.

Components:

ethanol

ALCOHOL:



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Species : Rabbit
Method : OECD Test Guideline 405
Result : Mild eye irritation

D-Glucopyranose, oligomers, decyl octyl glycosides

CAPRYLYL/CAPRYL GLUCOSIDE:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

citric acid

CITRIC ACID:

Result : Eye irritation

Respiratory or skin sensitisation

Product:

Remarks : No data available

Components:

ethanol

ALCOHOL:

Result : Not a skin sensitizer.

D-Glucopyranose, oligomers, decyl octyl glycosides

CAPRYLYL/CAPRYL GLUCOSIDE:

Species : Guinea pig
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

citric acid

CITRIC ACID:

Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Germ cell mutagenicity : Not Rated

Components:

D-Glucopyranose, oligomers, decyl octyl glycosides

CAPRYLYL/CAPRYL GLUCOSIDE:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity : Not Rated

Reproductive toxicity : Not Rated



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STOT - single exposure : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

ethanol

ALCOHOL:

Species : Rat, male
NOAEL : > 20 mg/kg
Method : OECD Test Guideline 403

Species : Rat, female
NOAEL : 1.730 mg/kg
Method : OECD Test Guideline 408

citric acid

CITRIC ACID:

Species : Rat
NOAEL : 4.000 mg/kg
LOAEL : 8.000 mg/kg
Application Route : Oral
Exposure time : 10 d

Aspiration toxicity : Not Rated

11.2 Information on other hazards

Further information

Product:

Remarks : No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

ALCOHOL:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 13 g/l
Exposure time: 96 h
Method: OECD Test Guideline 203

LC50 (Leuciscus idus (Golden orfe)): 8.150 mg/l
Exposure time: 48 h



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- LC50 (Pimephales promelas (fathead minnow)): > 0,1 g/l
Exposure time: 96 h
- LC50 (Fish): 11.200 mg/l
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 12.340 mg/l
Exposure time: 48 h
- EC50 : 5.012 mg/l
- Toxicity to algae/aquatic plants : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
- EC50 (Scenedesmus capricornutum (fresh water algae)): 12.900 mg/l
Exposure time: 48 h
Test Type: Growth inhibition
Method: No information available.
- EC0 (Scenedesmus quadricauda (Green algae)): 5.000 mg/l
Exposure time: 168 h
- EC50 : 4.432 mg/l
- EC10 : 11,5 mg/l
- EC10 : 280 mg/l
- Toxicity to microorganisms : EC50 (Pseudomonas putida): 11.800 mg/l
Exposure time: 16 h
Test Type: Cell multiplication inhibition test
- 501019-90-5:**
- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1 - 10 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 - 10 mg/l
- Toxicity to algae/aquatic plants : EC50 (Scenedesmus subspicatus): 10 - 100 mg/l
- Toxicity to microorganisms : EC0 : 1 - 10 mg/l
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,1 - 1 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

CAPRYLYL/CAPRYL GLUCOSIDE:

- Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 100,81 mg/l



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Exposure time: 96 h

NOEC (Brachydanio rerio (zebrafish)): 1,8 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

NOEC (Daphnia magna (Water flea)): 1,0 mg/l

Toxicity to algae/aquatic plants : EC50 (Scenedesmus subspicatus): 27,22 mg/l
Exposure time: 72 h

CITRIC ACID:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 440 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.535 mg/l
Exposure time: 24 h
Test Type: static test

EC50 (Daphnia magna (Water flea)): ca. 120 mg/l
Exposure time: 72 h

Toxicity to algae/aquatic plants : NOEC (Scenedesmus quadricauda (Green algae)): 425 mg/l
Exposure time: 8 Days
Test Type: static test

Toxicity to microorganisms : (Pseudomonas putida): > 10.000 mg/l
Exposure time: 16 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

Components:

ALCOHOL:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 97 %
Method: OECD Test Guideline 301

501019-90-5:

Biodegradability : Remarks: The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made



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available to them, at their direct request or at the request of a detergent manufacturer.

CAPRYLYL/CAPRYL GLUCOSIDE:

Biodegradability : Result: rapidly biodegradable
Biodegradation: 100 %
Exposure time: 28 d
Method: OECD 301 E

CITRIC ACID:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 97 %
Exposure time: 28 d
Method: OECD 301 B

Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 19 d
Method: OECD 301 E

Biochemical Oxygen Demand (BOD) : 526 mg/g

Chemical Oxygen Demand (COD) : 728 mg/g

ThOD : 0,75 g/g

12.3 Bioaccumulative potential

Components:

ALCOHOL:

Bioaccumulation : Concentration: 3,2 mg/l

Partition coefficient: n-octanol/water : log Pow: -0,32

CITRIC ACID:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Components:

CITRIC ACID:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not



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considered to be very persistent and very bioaccumulating (vPvB).

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
In accordance with local and national regulations.
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number or ID number

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods



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14.5 Environmental hazards

ADR

Not dangerous goods

IMDG

Not regulated as a dangerous good

IATA

Not dangerous goods

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

For personal protection see section 8.

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5.000 000067	50.000 000067

TA Luft List (Germany) : Total dust: Not applicable
: Inorganic substances in powdered form: Not applicable
: Inorganic substances in vapour or gaseous form: : portionClass 3: < 0,01 %
: Organic Substances: : portionClass 1: < 0,01 %
: Carcinogenic substances: Not applicable
: Mutagenic: Not applicable
: Toxic to reproduction: Not applicable

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Update: Percent volatile: 9,7 %
435,76 g/l
VOC content excluding water

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Update: Percent volatile: 9,7 %
97,29 g/l
VOC content valid only for coating materials used on wood surfaces

according to Detergents Regulation EC 648/2004 : 5 - <15% Non-ionic surfactants, <5% Anionic surfactants

GISBAU (D) : no assignment possible



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