

Safety Data Sheet

according to Ordinance (EC) No. 1907/2006

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1. Identification of the substance / mixture and of the company / undertaking

Trade name: BRILLIANCE CLEAN

Supplier: Gerd Eisenblätter GmbH

Jeschkenstraße 12d
82538 Geretsried
Phone: + 49 (0) 8171 / 9082 - 010

Emergencies: +49 (0) 8171 / 9082 - 010

2. Composition / Information on ingredients

Chemical characterisation:

Dangerous components:

PROPAN-2-OL

REACH registration No.: 01-2119457558-25-XXXX;

EC No : 200-661-7; CAS No. : 67-63-0

Weight fraction: 5 - < 10 %

Classification 67/548/EEC : F; R11 Xi; R36 R67

Classification 1272/2008 (CLP): Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336

BUTYL CELLOSOLVE

REACH registration No.: 01-2119475108-36-XXXX; EC No: 203-905-0; CAS No.: 111-76-2

Weight fraction: 5 - < 10 %

Classification 67/548/EEC: Xn; R20/21/22 Xi; R36/38

Classification 1272/2008 (CLP): Acute Tox. 4; H302 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319

(Full text of R-, H- and EUH-phrases: see section 16.)

3. Hazards identification

3.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

None.

3.2. Label elements

Labelling according to Directive 67/548/EEC or Directive 1999/45/EC

Special provisions concerning the labelling of certain mixtures

101 Safety data sheet available for professional user on request.

3.3. Other hazards

None.

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4. First aid measures

4.1. Description of first aid measures

- After inhalation: In case of respiratory tract irritation, consult a physician.
Remove casualty to fresh air and keep warm and at rest.
- After skin contact: After contact with skin, wash immediately with plenty of water and soap.
Rub greasy ointment into the skin.
- After eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- After swallowing: Rinse mouth immediately and drink plenty of water. Call a physician immediately.
- General information: When in doubt or if symptoms are observed, get medical advice.

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

No information available.

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

None.

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing agents:

Water foam, extinguishing powder, carbon dioxide (CO₂), sand, nitrogen, extinguishing blanket.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: carbon monoxide, carbon dioxide (CO₂), sulphur oxides.

5.3. Advice for fire fighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.
Move undamaged containers from immediate hazard area if it can be done safely.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Special danger of slipping by leaking / spilling product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil / subsoil.

6.3. Methods and material for containment and cleaning up

Clear spills immediately. Wipe up with absorbent material (e.g. cloth, fleece). Wash with plenty of water. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for disposal information.

7. Handling and storage

7.1. Precautions for safe handling

Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

Keep / Store only in original container. Protect against Frost.

Hints on joint storage

Storage class (TRGS 510): 10

Specific end use(s):

Observe technical data sheet. Observe instructions for use.

8. Exposure controls / personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1. Control parameters

Occupational exposure limit values

PROPAN-2-OL; CAS No.: 67-63-0

Limit value type (country of origin): STEL (D)

Limit value: 400 ppm / 1000 mg/m³

Version:

Limit value type (country of origin): TRGS 900 (D)

Limit value: 200 ppm / 500 mg/m³

Peak limitation: 2(II)

Remark: Y

Version: 01.09.2012

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BUTYL CELLOSOLVE; CAS No.: 111-76-2
Limit value type (country of origin): STEL (D)
Limit value: 40 ppm / 196 mg/m³
Version:
Limit value type (country of origin): TRGS 900 (D)
Limit value: 10 ppm / 49 mg/m³
Peak limitation: 4(II)
Remark: H,Y
Version: 01.09.2012
Limit value type (country of origin): STEL (EC)
Limit value: 50 ppm / 246 mg/m³
Remark: H
Version: 08.06.2000
Limit value type (country of origin): TWA (EC)
Limit value: 20 ppm / 98 mg/m³
Remark: H
Version: 08.06.2000

Biological limit values

PROPAN-2-OL; CAS No.: 67-63-0
Limit value type (country of origin): TRGS 903 (D)
Parameter: Acetone / Whole blood (B) / End of exposure or end of shift
Limit value: 25 mg/l
Version: 31.03.2004
Limit value type (country of origin): TRGS 903 (D)
Parameter: Acetone / Urine (U) / End of exposure or end of shift
Limit value: 25 mg/l
Version: 31.03.2004
BUTYL CELLOSOLVE; CAS No.: 111-76-2
Limit value type (country of origin): TRGS 903 (D)
Parameter: Butoxy acetic acid / Urine (U) / At long term exposure: after several previous shifts
Limit value: 100 mg/l
Version: 31.03.2004

DNEL / DMEL and PNEC values

DNEL / DMEL

Limit value type: DNEL / DMEL (Worker, Local) (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Exposure route: Inhalation
Exposure frequency: Short-term (acute)
Limit value: 246 mg/m³
Limit value type: DNEL / DMEL (Worker, Systemic) (BUTYL CELLOSOLVE; CAS No. : 111-76-2)
Exposure route: Inhalation
Exposure frequency: Long-term (repeated)
Limit value: 98 mg/m³
Limit value type: DNEL / DMEL (Worker, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route: Inhalation
Exposure frequency: Long-term (repeated)
Limit value: 500 mg/m³
Limit value type: DNEL / DMEL (Worker, Systemic) (PROPAN-2-OL ; CAS No. : 67-63-0)
Exposure route: Dermal
Exposure frequency: Long-term (repeated)
Limit value: 888 mg/kg

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Limit value type: DNEL / DMEL (Worker, Systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2)

Exposure route: Inhalation

Exposure frequency: Short-term (acute)

Limit value: 663 mg/m³

Limit value type: DNEL / DMEL (Worker, Systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2)

Exposure route: Dermal

Exposure frequency: Long-term (repeated)

Limit value: 75 mg/kg

Limit value type: DNEL / DMEL (Worker, Systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2)

Exposure route: Dermal

Exposure frequency: Short-term (acute)

Limit value: 89 mg/kg

8.2. Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Do not put any product-impregnated cleaning rags into your trouser pockets.

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

Remove contaminated, saturated clothing immediately.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus: Combination filtering device (EN 14387) Type: A

Remark: Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Protection of hands:

Wear protective gloves in case of longer lasting skin contact.

Suitable gloves type: EN 374.

Suitable material: NBR (Nitrile rubber).

Breakthrough time (maximum wearing time): 480 min.

Thickness of the glove material: 0.4 mm

Remark: The exact breakthrough time has to be requested from the protective glove manufacturer and limits has to be ensured.

Eye protection:

Wear suitable safety goggles in case of splash.

Suitable eye protection: Safety goggles acc. EN 166.

Additional information:

No tests have been performed. Selection made for preparations according to the best available knowledge and information on ingredients.

In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use.

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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	clear	
Odour:	characteristic	
pH-value	ca. 10.5	
Vapour pressure (50°C):	< 1000 hPa	
Boiling temperature/ Boiling range (1013hPa):	ca. 95°C	
Flash point:	ca. 40°C	
Ignition temperature:	not relevant	
Danger of explosion:		
lower explosion limit:	not relevant	
upper explosion limit:	not relevant	
Density (20°C):	ca. 1 g/cm ³	
Solubility (20°C):	completely miscible	
Solidifying point (1234,1 % / 1256,1 Vol-%):	ca. -8°C	Brookfield
Maximum VOC content (EC):	13 Wt %	
Maximum VOC content (Switzerland):	13 Wt %	

9.2. Other information

None.

10. Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

Do not spray on naked flames or any incandescent materials.

10.4. Conditions to avoid

No information available.

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10.5. Incompatible materials

Aluminium, Zinc.

10.6. Hazardous decomposition products

Do not inhale explosion and combustion gases.

11. Toxicological information

11.1. Information on toxicological effects

Acute effects:

Acute oral toxicity

Parameter:	LD50
	(BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Exposure route:	Oral
Species:	Rat
Effective dose:	1746 mg/kg
Method:	OECD 401
Parameter:	LD50
	(PROPAN-2-OL; CAS No.: 67-63-0)
Exposure route:	Oral
Species:	Rat
Effective dose:	> 2000 mg/kg
Method:	OECD 401

Acute dermal toxicity

Parameter:	LD50
	(BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Exposure route:	Dermal
Species:	Rabbit
Effective dose:	841 mg/kg
Method:	OECD 402
Parameter:	LD50
	(PROPAN-2-OL; CAS No.: 67-63-0)
Exposure route:	Dermal
Species:	Rabbit
Effective dose:	> 2000 mg/kg

Acute inhalation toxicity

Parameter:	LC50
	(PROPAN-2-OL; CAS No.: 67-63-0)
Exposure route:	Inhalation
Species:	Rat
Effective dose:	> 10000 ppm
Exposure time:	6 h
Method:	OECD 403
Parameter:	LC50
	(BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Exposure route:	Inhalation
Species:	Rat
Effective dose:	2 - 20 mg/l
Exposure time:	4 h

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11.2. Toxicokinetics, metabolism and distribution

There are no data available on the preparation / mixture itself.

11.3. Other adverse effects

Frequently or prolonged contact with skin may cause dermal irritation.

11.4. Additional information

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

12. Ecological information

12.1. Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter:	LC50
	(BUTYL CELLOSOLVE ; CAS No. : 111-76-2)
Species:	Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter:	Acute (short-term) fish toxicity
Effective dose:	1474 mg/l
Exposure time:	96 h
Method:	OECD 203
Parameter:	LC50
	(PROPAN-2-OL; CAS No.: 67-63-0)
Species:	Pimephales promelas (fathead minnow)
Evaluation parameter:	Acute (short-term) fish toxicity
Effective dose:	10000 mg/l
Exposure time:	96 h
Method:	OECD 203
Parameter:	LC50
	(PROPAN-2-OL; CAS No.: 67-63-0)
Species:	Daphnia magna (Big water flea)
Evaluation parameter:	Acute (short-term) daphnia toxicity
Effective dose:	> 10000 mg/l
Exposure time:	48 h
Method:	OECD 202
Parameter:	LC50
	(BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species:	Daphnia magna (Big water flea)
Evaluation parameter:	Acute (short-term) daphnia toxicity
Effective dose:	1815 mg/l
Exposure time:	24 h
Method:	DIN 38412 / part 11
Parameter:	LC50 (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species:	Daphnia magna (Big water flea)
Evaluation parameter:	Chronic (long-term) daphnia toxicity
Effective dose:	297 mg/l
Exposure time:	21 d
Method:	OECD 211

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Chronic (long-term) daphnia toxicity

Parameter:	NOEC (BUTYL CELLOSOLVE ; CAS No. : 111-76-2)
Species:	Brachydanio rerio (zebra-fish)
Evaluation parameter:	Chronic (long-term) fish toxicity
Effective dose:	> 100 mg/l
Exposure time:	21 d
Method:	OECD 204
Parameter:	NOEC (BUTYL CELLOSOLVE ; CAS No. : 111-76-2)
Species:	Daphnia magna (Big water flea)
Evaluation parameter:	Chronic (long-term) daphnia toxicity
Effective dose:	100 mg/l
Exposure time:	21 d
Method:	OECD 211
Parameter:	NOEC (BUTYL CELLOSOLVE ; CAS No. : 111-76-2)
Species:	Algae
Effective dose:	286 mg/l
Exposure time:	72 h
Method:	OECD 201

Acute (short-term) algae toxicity

Parameter:	EC50 (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species:	Algae
Effective dose:	1840 mg/l
Exposure time:	72 h
Method:	OECD 201

12.2. Persistence and degradability

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

Biodegradation

Analytical method:	Biodegradation (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Parameter:	Biodegradation
Degradation rate:	88 %
Time:	20 d
Analytical method:	Biodegradation (PROPAN-2-OL; CAS No.: 67-63-0)
Parameter:	Biodegradation
Type:	Aerobic
Degradation rate:	> 53 %
Time:	5 d

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT / vPvB criteria of REACH, annex XIII.

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12.6. Other adverse effects

No information available.

12.7. Further ecological information

After neutralization, reduction in toxic effects is observed.

13. Disposal considerations

The waste codes are recommendations based on the schedule use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

13.1. Waste treatment methods

Product / Packaging disposal

Waste codes / waste designations according to EWC / AVV

Waste code product

07 06 01* - aqueous washing liquids and mother liquors

20 01 30 - detergents other than those mentioned in 20 01 29.

Waste code packaging

15 01 02 - plastic packaging.

Waste treatment options

Appropriate disposal / Package

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner as the medium.

13.2. Additional information

These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

14. Transport information

14.1. UN number

No dangerous goods in sense of this transport regulation.

14.2. UN proper shipping name

No dangerous goods in sense of this transport regulation.

14.3. Transport hazard class(es)

No dangerous goods in sense of this transport regulation.

14.4. Packing group

No dangerous goods in sense of this transport regulation.

14.5. Environmental hazards

No dangerous goods in sense of this transport regulation.

14.6. Special precautions for user

None

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15. Regulatory information

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

EU legislation

Other regulations (EU)

Labelling for contents according to regulation (EC) No. 648/2004

None

National regulations

AT: Labelling according to Austrian regulations (Chemikaliengesetz / ChemV).

CH: Chemikalienverordnung (ChemV) and Chemikalien-Risikoreduktions-Verordnung (Chem RRV) are complied.

Restrictions of occupation

None

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

Other regulations, restrictions and prohibition regulations

VbF-Class : -

15.2. Chemical safety assessment

No information available.

16. Other information

Relevant R-phrases (number and full text):

- 11 Highly flammable.
- 20 / 21 / 22 Harmful by inhalation, in contact with skin and if swallowed.
- 36 Irritating to eyes.
- 36 / 38 Irritating to eyes and skin.
- 67 Vapours may cause drowsiness and dizziness.

Relevant H- and EUH-phrases (number and full text):

- H225 Highly flammable liquid and vapour.
- H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.

Abbreviations and acronyms

- ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route.
- AOX: adsorbable organohalogenes
- CAS: Chemicals Abstracts Service
- CLP: Classification, Labelling and Packaging
- EAK / AVV: europäischer Abfallschlüsselkatalog (european waste catalogue)
- EINECS: European Inventory of Existing Commercial Chemical Substances
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organization
- IMDG: International Maritime Code for Dangerous Goods
- RCP: reciprocal calculation procedure
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- TRGS: Technische Regel für den Umgang mit Gefahrstoffen
- VbF: Verordnung über brennbare Flüssigkeiten

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VOC: Volatile Organic Compounds

VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe

WGK: Wassergefährdungsklasse (water hazardous class)

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.