

Trade name: BladeCool 2.0

Substance number: R-GTA103

Version: 3 / DE

Replaces Version: 2 / DE

Date revised: 14.10.2024 Print date: 10.06.2025

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

1.1. Product identifier

BladeCool 2.0

Registration no.

UFI 2U80-90UX-K001-YRSY

Substance / product identification

PR-No. GTA103

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

Use of the substance/preparation

Cleaners

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Albert Kerbl GmbH

Felizenzell 9

84428 Buchbach

Information provided by / telephone Albert Kerbl GmbH Tel.: 0049-(0)8086-933-302

E-mail address of person responsible for this SDS sdb-team@kerbl.com

1.4. Distributed by:

Shoof International Ltd

New Zealand: 224 Laurent Road, Cambridge 3493. Emergency contact: 0800 POISON (0800 764 766)

Australia: 1 International Square, Tullamarine, VIC 3043

Emergency contact: 13 11 26

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)
Aerosol 1

H222 H229

Eye Irrit. 2 H319 STOT SE 3 H336 Aquatic Chronic 3 H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008 For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms





Trade name: BladeCool 2.0

Version: 3 / DE Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Signal word

Danger

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurized container: may burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.
P251 Do not pierce or burn, even after use.

P271 Use only outdoors or in a well-ventilated area.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to

temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container to a hazardous or

special waste collection point (problem waste collection point), in accordance with local, regional, national and/or international

regulations.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains Propan-2-ol; Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclenes, <5% n-hexane

2.3. Other hazards

In case of insufficient ventilation and / or through use, formation of explosive / highly flammable vapour/air mixtures possible.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients

Kohlenwasserstoffe, C6-C7, iso-Alkane, cyclische, <5% n-Hexan

CAS No. 64742-49-0 EINECS no. 926-605-8

Registration no. 01-2119486291-36

Concentration >= 2,5 < 10 %

Classification (Regulation (EC) No. 1272/2008)

Aquatic Chronic 2 H411 Asp. Tox. 1 H304 Flam. Liq. 2 H225 STOT SE 3 H336 EUH066

Further ingredients



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Butane

CAS No. 106-97-8 EINECS no. 203-448-7

Registration no. 01-2119474691-32 %

Concentration 50

Advice: [3]

Classification (Regulation (EC) No. 1272/2008)

Flam. Gas 1 H220 Press. Gas H280

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note

C. U

DSD Directive 67/548/EEC, Annex I, Note C

Propane

CAS No. 74-98-6 EINECS no. 200-827-9

Registration no. 01-2119486944-21 %

Concentration 25 50

Advice: [3]

Classification (Regulation (EC) No. 1272/2008)

Flam, Gas 1 H220 Press. Gas H280

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note

Propan-2-ol

CAS No. 67-63-0 EINECS no. 200-661-7

Registration no. 01-2119457558-25 %

Concentration 1 10 >= <

Advice: [3]

Classification (Regulation (EC) No. 1272/2008)

H225 Flam. Liq. 2 Eve Irrit. 2 H319 STOT SE 3 H336

Note

[3] Substance with occupational exposure limits

Other information

>= 30% aliphatic hydrocarbons.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. Clean body thoroughly (bath, shower). In any case show the physician the Safety Data Sheet.

After inhalation

Ensure supply of fresh air. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice. Summon a doctor immediately.

After skin contact



Date revised: 14.10.2024

Print date: 10.06.2025

Trade name: BladeCool 2.0

Substance number: R-GTA103

Version: 3 / DE

Replaces Version: 2 / DE

Take off contaminated clothing. Wash contaminated clothing before reuse. After contact with skin, wash immediately with plenty of water. Wash skin with plenty of soap and water. Consult a doctor if skin irritation persists.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

After ingestion

Rinse out mouth and give plenty of water to drink. Summon a doctor immediately. Do not induce vomiting - aspiration hazard.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed Hints for the physician / hazards

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide, Foam, Dry powder

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Flammable aerosol. CAUTION: Aerosol cans can explode. May form explosive gas-air mixtures. In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO2)

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Wear protective clothing.

Other information

Cool endangered containers with water spray jet. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire-fighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away sources of ignition. Ensure adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothing. Use personal protective clothing.

6.2. Environmental precautions

Do not allow uncontrolled release of product into the environment. Explosion hazard.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). When picked up, treat material as prescribed under Section 13 "Disposal".

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8. Information regarding waste disposal, see



Trade name: BladeCool 2.0

Version: 3 / DE Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not breathe gas/fumes/vapour/spray. Do not pierce or burn the container, even after use.

Advice on protection against fire and explosion

Do not spray against a flame or on a glowing object. Protect from sunlight and temperatures above 50°C (e.g. from incandescent lamps). Keep away from sources of ignition - No smoking. Take action to prevent static discharges. Vapours can form an explosive mixture with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep out of reach of persons not familiar with the operation or the subject. Storage rooms must be properly ventilated. Keep container in a cool, well-ventilated place. Protect from heat. Protect against direct sunlight.

Hints on storage assembly

Do not store together with: Oxidising agents, Pyrophoric substances, self-heating hazardous substances, Do not store together with foodstuffs. Do not store together with animal feedstocks.

Storage classes

Storage class according to TRGS 510 2B Aerosol dispensers

Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

7.3. Specific end use(s)

Aerosol

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Propan-2-ol

List TRGS 900 Type AGW

Value 500 mg/m³ 200 ppm(V) Maximum limit value: 2(II) Pregnancy group: Y; Status: 07.06.2018; Remarks: DFG

Butane

List TRGS 900 Type AGW

Value 2400 mg/m³ 1000 ppm(V)

Maximum limit value: 4(II) Status: 07.06.2018; Remarks: DFG

Propane

List TRGS 900 Type AGW

Value 1800 mg/m³ 1000 ppm(V)

Maximum limit value: 4(II) Status: 07.06.2018; Remarks: DFG

Biological limit values

Propan-2-ol

List BGW (TRGS 903)



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Value 25 mg/l

Parameter acetone

Testing material Whole blood (B)

Test date End of exposure or end of shift (b)

Source TRGS 903

Propan-2-ol

List BGW (TRGS 903) Value 25 mg/l

Parameter acetone Testing material Urine (U)

Test date End of exposure or end of shift (b)

Source TRGS 903

Other information

There are not known any further control parameters.

Derived No/Minimal Effect Levels (DNEL/DMEL)

Propan-2-ol

Type of value Derived No Effect Level (DNEL)

Reference group Professional Duration of exposure Repeated exposure

Route of exposure inhalative

Mode of action Systemic effects

Concentration 500 mg/m³

Type of value Derived No Effect Level (DNEL)

Reference group Professional Professional Repeated exposure

Route of exposure dermal

Mode of action Systemic effects

Concentration 888 mg/kg/d

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Repeated exposure

Route of exposure dermal

Mode of action Systemic effects

Concentration 319 mg/kg/d

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Repeated exposure

Route of exposure inhalative
Mode of action Systemic effects

Concentration 26 mg/kg/d

Type of value Derived No Effect Level (DNEL)

Reference group Consumer

Duration of exposure Repeated exposure

Route of exposure inhalative
Mode of action Systemic effects

Concentration 89 mg/m³

Predicted No Effect Concentration (PNEC)

Propan-2-ol

Type of value PNEC

Type Water (intermittent release)



Trade name: BladeCool 2.0

Version: 3 / DE Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Concentration 140,9 mg/l

Type of value PNEC Saltwater

Concentration 140,9 mg/l

Type of value PNEC Type Freshwater

Concentration 140,9 mg/l

Type of value PNEC Type Soil

Concentration 28 mg/kg/d

8.2. Exposure controls

General protective and hygiene measures

Do not inhale gases/vapours/aerosols. Personal protective equipment must comply with the Regulation (EC) No 2016/425 and the resulting CEN standards. At work do not eat, drink, smoke or take drugs. Take off immediately all contaminated clothing. Wash hands before breaks and after work.

Respiratory protection

Normally not required.

Hand protection

Chemical resistant gloves

The selection of a suitable glove depends not only on the material but also on other quality features and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of glove materials cannot be calculated in advance and must therefore be checked before use.

Hand protection must comply with EN 374.

Appropriate Material nitrile

Material thickness 0,4 mm Breakthrough time >= 240 min

Eye protection

Eye protection must comply with EN 166. Safety goggles

Body protection

antistatic boots; light protective clothing, anti-static

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid colourless Odour Alcohol

Melting point

Remarks not determined

Freezing point

Remarks not determined

Boiling point or initial boiling point and boiling range

Value < -20 °C

Flammability

Not applicable

Upper and lower explosive limits



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Lower explosion limit 1,5 %(V)
Upper explosion limit 10,9 %(V)

Flash point

Value < -20 °C

Auto-ignition temperature

Value > 350 °C

Decomposition temperature

Remarks not determined

pH value

Remarks Not relevant

Viscosity

Remarks not determined

Solubility(ies)

Remarks not determined

Partition coefficient n-octanol/water (log value)

Reference substance Propan-2-ol log Pow 0,05
Reference substance Butane 1,09
Reference substance Propane

log Pow
Vapour pressure

Remarks not determined

Density and/or relative density

Remarks not determined

Relative vapour density

Value 0,58 g/cm³
Temperature 20 °C

1,09

9.2. Other information

Odour threshold

Remarks not determined

Evaporation rate (ether = 1):

Remarks not determined

Solubility in water

Remarks virtually insoluble

Auto-ignition temperature

Remarks Not applicable

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

Other information

None known

SECTION 10: Stability and reactivity

10.1. Reactivity



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Extremely flammable aerosol. Container is under pressure: may burst when heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Vapours can form an explosive mixture with air. Keep away from: Flames and sparks. Hot surfaces.

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

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

Acute oral toxicity

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

Acute oral toxicity (Components)

Propan-2-ol

Species Rats (male/female)

LD50 5840 mg/kg

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Propan-2-ol

Species rabbit

LD50 13900 mg/kg

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)

Butane

Species mouse

LC50 1237 mg/l

Propane

Species mouse

LC50 1237 mg/l

Propan-2-ol

Species Rats (male/female)

LC50 > 10000 ppm(V)

Duration of exposure 6 h

Skin corrosion/irritation

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

Serious eye damage/irritation

evaluation irritant

Remarks The classification criteria are met.

Sensitization

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



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Subacute, subchronic, chronic toxicity

Remarks May cause drowsiness and dizziness.

Mutagenicity

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

Reproductive toxicity

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

Carcinogenicity

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

Specific Target Organ Toxicity (STOT)

Single exposure

Remarks The classification criteria are met. evaluation May cause drowsiness or dizziness.

Repeated exposure

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

Specific Target Organ Toxicity (STOT) (Components)

propan-2-ol

Remarks May cause drowsiness and dizziness.

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

No information available

Other information

There is no data available on the product apart from the information given in this subsection.

SECTION 12: Ecological information

12.1. Toxicity

General information

May cause long lasting harmful effects to aquatic life.

Fish toxicity (Components)

Propan-2-ol

Species Fish

LC50 10000 mg/l

Duration of exposure 96 h

Butane

Species Fish

LC50 49,9 mg/l

Duration of exposure 96 h

Propane

Species Fish

LC50 49,9 mg/l

Duration of exposure 96 h

Daphnia toxicity (Components)



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

Propan-2-ol

Species Daphnia pulex

LC50 > 10000 mg/l

Duration of exposure 24 h

Algae toxicity (Components)

Propan-2-ol

Species Scenedesmus subspicatus

ErC50 > 100 mg/l

Duration of exposure 72 h

Butane

Species Algae

ErC50 19,37 mg/l

Duration of exposure 96 h

Propane

Species Algae

ErC50 19,37 mg/l

Duration of exposure 96 h

12.2. Persistence and degradability

General information

not determined

Biodegradability

Reference substance Propan-2-ol

Value 95 %

Duration of test 21 d

Remarks The product is readily biodegradable according to OECD criteria.

Reference substance Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclenes, <5% n-hexane

Value 98 %

Duration of test 28 d

Remarks The product is readily biodegradable according to OECD criteria.

Biodegradability (Components)

Butane

Value 100 %

Duration of test 385,5 h

Method Biodegradation test, predates, OECD test

Propane

Value 100 %

Duration of test 385,5 h

Method Biodegradation test, predates, OECD test

Propan-2-ol

Value 53 %

Duration of test 5 d

Method EU Method C.5

12.3. Bioaccumulative potential

General information

not determined

Partition coefficient n-octanol/water (log value)

Reference substance Propan-2-ol

log Pow 0,05

Reference substance Butane

log Pow 1,09 Reference substance Propane



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

log Pow 1,09

Octanol/water partition coefficient (log Pow) (Components)

Propan-2-ol

log Pow 1,09

12.4. Mobility in soil

General information

not determined

12.5. Results of PBT and vPvB assessment

General information

Mixture does not meet PBT or vPvB criteria.

Results of PBT and vPvB assessment

The product contains no PBT substances The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Do not allow to enter drains.

Do not allow to enter waters.

Do not discharge into the subsoil/soil.

Dispose of waste according to applicable legislation.

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

EWC waste code 16 05 04* gases in pressure containers (including halons) containing dangerous substances

Disposal recommendations for packaging

Uncontaminated packaging may be reused.

Packaging that cannot be cleaned should be disposed off as product waste.

SECTION 14: Transport information



Trade name: BladeCool 2.0

Version: 3 / DE

Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	1950	1950	1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)	2	2.1	2.1
Label	8	0	
Limited Quantity	11	11	
Transport category	2		
14.5. Environmental hazards	-		
Tunnel restriction code	D		

Information for all modes of transport

14.6. Special precautions for user

See Sections 6 to 8

Other information

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

Major-accident categories acc. 2012/18/EU

Category P3a FLAMMABLE AEROSOLS

Water Hazard Class (Germany)

Water Hazard Class

(Germany)

Remarks Derivation of WGK according to Annex 1 No. 5.2 AwSV

VOC

VOC (CH) 99,4 % 576,52 g/l

VOC (EU) 99,6 %

Other regulations, restrictions and prohibition regulations

To be noted:

Regulation (EC) No. 648/2004 (detergents)

Observe employment restrictions for young people.

To be noted: 850/2004/EC



Trade name: BladeCool 2.0

Version: 3 / DE Date revised: 14.10.2024

Substance number: R-GTA103 Replaces Version: 2 / DE Print date: 10.06.2025

79/117/EEC 689/2008/EC 2008/47/EC

Aerosol guideline (75/324/EWG)

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

The classification was carried out according to the calculation method of Regulation (EC) No. 1272/2008 (CLP Regulation).

The classification is based on the specifications of the pre-supplier/manufacturer.

Eye Irrit. 2; H319

Transmission principle "Aerosol".

STOT SE 3: H336

Transmission principle "Aerosol".

Hazard statements listed in Chapter 3

EUH066 Repeated exposure may cause skin dryness or cracking.

H222 Extremely flammable aerosol.
 H225 Highly flammable liquid and vapour.
 H229 Pressurized container: may burst if heated.
 H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Aerosol 1 Aerosol, Category 1

Aquatic Chronic 2 Hazardous to the aquatic environment, chronic, Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment, chronic, Category 3

Asp. Tox. 1 Aspiration hazard, Category 1 Eye Irrit. 2 Eye irritation, Category 2 Flam. Liq. 2 Flammable liquid, Category 2

STOT SE 3 Specific target organ toxicity - single exposure, Category 3

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.
Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.
The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.