

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/13/2023

Reviewed on 01/13/2023

1 Identification

Product identifier

Trade name: **ATTBLIME - AB2**
Article number: 5140-1265
Application of the substance / the mixture: Flatting agent, Matting agent

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Graichen
Produktions- und Vertriebs-GmbH
Darmstädter Str. 127 - 129
D-64625 Bensheim
Tel.: +49(0)6251/73103
Fax: +49(0)6251/77901
e-mail: info@graichen-bensheim.de
homepage: http://www.graichen.net

Information department: Internal security department
Emergency telephone number: During and outside office hours:
Phone.: +49(0)2774/6153
Poison Information Center Mainz - 24h -
Tel.: +49 (0) 6131 19240
USA / CAN : 800-424-9300 (available 24 hrs)

2 Hazard identification

Classification of the substance or mixture

Flammable Aerosols - Category 1	H222-H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
Gases Under Pressure - Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation - Category 2A	H319	Causes serious eye irritation.
Specific Target Organ Toxicity - Single Exposure - Category 3	H336	May cause drowsiness or dizziness.

Label elements

GHS label elements
Hazard pictograms

The product is classified and labeled according to the Globally Harmonized System (GHS).



GHS02 GHS04 GHS07

Signal word

Danger

Hazard-determining components of labeling:

propan-2-ol
Hydrocarbons, C7-C9, n-Alkanes, Isoalkanes, Cycloalkanes

Hazard statements

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Store in a well-ventilated place.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Information pertaining to particular dangers for man and environment:

NFPA ratings (scale 0 - 4)



Health = 2
Fire = 4
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 2
Fire = 4
Reactivity = 3

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3 Composition/Information on ingredients

Chemical characterization: Mixtures

Description: Active substance with propellant

Dangerous components:

CAS: 106-97-8	butane (containing $\leq 0,1$ % butadiene (106-99-0)) ⚠ Flammable Gases - Category 1, H220; ⚠ Gases Under Pressure - Compressed Gas, H280	30 – 60% w/w
CAS: 67-63-0	propan-2-ol ⚠ Flammable Liquids - Category 2, H225; ⚠ Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H336	10 – 30% w/w
CAS: 74-98-6	propane ⚠ Flammable Gases - Category 1, H220; ⚠ Gases Under Pressure - Compressed Gas, H280	10 – 30% w/w
	Hydrocarbons, C7-C9, n-Alkanes, Isoalkanes, Cycloalkanes ⚠ Flammable Liquids - Category 2, H225; ⚠ Aspiration Hazard - Category 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Specific Target Organ Toxicity - Single Exposure - Category 3, H336; Aquatic Acute 2, H401	1 – 5% w/w
CAS: 75-28-5	isobutane (containing $\leq 0,1$ % butadiene (106-99-0)) ⚠ Flammable Gases - Category 1, H220; ⚠ Gases Under Pressure - Compressed Gas, H280	0.5 – 1.5% w/w

Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

Description of first aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Wash with water and acidic soap.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Seek immediate medical advice.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters

Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling: Open and handle receptacle with care.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

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Conditions for safe storage, including any incompatibilities

- Requirements to be met by storerooms and receptacles: Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions: Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- Specific end use(s): No further relevant information available.

8 Exposure controls/ Personal protection

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

Control parameters

- Components with limit values that require monitoring at the workplace:

CAS: 106-97-8 butane (containing $\leq 0,1$ % butadiene (106-99-0))

EL	STEL: 1000 ppm EX
EV	TWA: 800 ppm revoked as of 01/01/18

CAS: 67-63-0 propan-2-ol

EL	STEL: 400 ppm TWA: 200 ppm
EV	STEL: 400 ppm TWA: 200 ppm

CAS: 74-98-6 propane

EL	Simple asphyxiant; EX
EV	TWA: 1,000 ppm revoked as of 01/01/18

CAS: 75-28-5 isobutane (containing $\leq 0,1$ % butadiene (106-99-0))

EL	STEL: 1000 ppm EX
EV	TWA: 800 ppm revoked as of 01/01/18

- Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

- Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- Breathing equipment: Not required.
- Protection of hands: 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: Recommended thickness of the material: ≥ 0.7 mm
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- 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
- Body protection: Protective work clothing

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9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Aerosol
Color:	White
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value at 20 °C (68 °F): 6.9

Change in condition
Boiling point/Boiling range: -44.5 °C (-48.1 °F)

Flash point: -97 °C (-142.6 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 230 °C (446 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:
Lower: 1.5 Vol %
Upper: 12 Vol %

Vapor pressure at 20 °C (68 °F): 8,300 hPa (6.200 mm Hg)

Density at 20 °C (68 °F): 0.6815 g/cm³ (5.6871 lbs/gal)

Relative density: Not determined.

Vapor density: Not determined.

Evaporation rate: Not applicable.

Solubility in / Miscibility with
Water: Insoluble.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:
Dynamic: Not determined.Solvent content:
Organic solvents: 90.4 %

Solids content: 5.0 %

Other information: No further relevant information available.

10 Stability and reactivity

Reactivity: No further relevant information available.

Chemical stability

Thermal decomposition / conditions
to be avoided: No decomposition if used according to specifications.Possibility of hazardous
reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition
products: No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

CAS: 67-63-0 propan-2-ol

Oral	LD50	5,840 mg/kg (rat) (Acute Oral Toxicity)
Dermal	LD50	12,870 mg/kg (rab) (Acute Dermal Toxicity)
Inhalative	LC50/4h	72.6 mg/l (rat)
	LC50/6h	> 25 mg/l (rat) (Acute Inhalation Toxicity)

Hydrocarbons, C7-C9, n-Alkanes, Isoalkanes, Cycloalkanes

Oral	LD50	> 5,000 mg/kg (rat) (Acute Oral Toxicity)
Dermal	LD50	> 2,800 mg/kg (rabbit) (Acute Dermal Toxicity)
Inhalative	LC50/4h	> 23.3 mg/l (rat) (Acute Inhalation Toxicity)

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. Primary irritant effect:

. on the skin:

CAS: 67-63-0 propan-2-ol

Ätz-/Reizwirkung auf die Haut (4h)	(rabbit) (Acute Dermal Irritation/Corrosion)
	leicht reizend

. on the eye:

Irritating effect.

CAS: 67-63-0 propan-2-ol

Schwere Augenschädigung/-reizung	(rabbit) (Acute Eye Irritation/Corrosion)
	mäßig reizend

. Sensitization:

No sensitizing effects known.

. Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

CAS: 67-63-0 propan-2-ol

NOAEL, maternal	400 mg/kg KG/day (rat)
NOAEL, parents	500 mg/kg KG/day (Two-Generation Reproduction Toxicity)
	853 mg/kg KG/day (rat) (One-Generation Reproduction Toxicity Study)

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

CAS: 67-63-0 | propan-2-ol

3

. NTP (National Toxicology Program)

None of the ingredients is listed.

. Reproductive toxicity

CAS: 67-63-0 propan-2-ol

Oral | NOAEL, Parents | 500 mg/kg (rat) (Two-Generation Reproduction Toxicity)

. Specific target organ toxicity - repeated exposure

CAS: 67-63-0 propan-2-ol

STOT RE	mg/kg/day (rat)
	at least 104 w 6h/d, 5d/w

12 Ecological information

. Toxicity

. Aquatic toxicity:

CAS: 106-97-8 butane (containing $\leq 0,1$ % butadiene (106-99-0))

EC50 (96h)	7.71 mg/l (Algae)
LC50 (96h)	27.98 mg/l (Fisch)

CAS: 67-63-0 propan-2-ol

EC50	> 100 mg/l (Bacteria)
EC50 (48h)	> 100 mg/l (daphnia magna/gr. Wasserfloh)
EC50 (72h)	> 100 mg/l (Scenedesmus subspicatus)
EC50 (96h)	> 1,000 mg/l (Scenedesmus subspicatus) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)
LC50 (24h)	9,714 mg/l (daphnia magna/gr. Wasserfloh) (Daphnia sp. Acute Immobilisation Test)
	9,640 mg/l (Pimephales promelas (fettköpf. Ellritze)) (Fish, Acute Toxicity Test)
LC50 (48h)	> 100 mg/l (Leuciscus idus (Goldorfe))
LC50 (96h)	> 9,640 – 10,000 mg/l (Pimephales promelas (fettköpf. Ellritze)) (Fish, Acute Toxicity Test)
LOEC (8d)	1,000 mg/l (Algae)
EC50 (3h)	> 1,000 mg/l (activated sludge) (Mikroorganismen/Wirkung auf Belebtschlamm)
NOEC (21d)	30 mg/l (daphnia magna/gr. Wasserfloh) (Daphnia magna Reproduction Test)
NOEC (96h)	1,000 mg/l (Scenedesmus subspicatus) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

CAS: 74-98-6 propane

EC50 (96h)	7.71 mg/l (Algae)
LC50 (96h)	27.98 mg/l (Fisch)

Hydrocarbons, C7-C9, n-Alkanes, Isoalkanes, Cycloalkanes

LL50 (96h)	> 13.4 mg/l (Oncorhynchus mykiss)
EL50 (48h)	3 mg/l (daphnia magna/gr. Wasserfloh)
EL50 (72h)	10 – 30 mg/l (Pseudokirchneriella subcapitata - Algen)
NOELR (72h)	10 mg/l (Pseudokirchneriella subcapitata - Algen)

CAS: 75-28-5 isobutane (containing $\leq 0,1$ % butadiene (106-99-0))

EC50 (96h)	7.71 mg/l (Algae)
LC50 (96h)	27.98 mg/l (Fisch)

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. Persistence and degradability

CAS: 67-63-0 propan-2-ol

Biodegradability 30d | 70 – 84 % (aerob) ((Derterm. of the "Ready" Biodegr. Closed Bottle))

. Behavior in environmental systems:

. Bioaccumulative potential

CAS: 67-63-0 propan-2-ol

Log Pow | 0.05

. Mobility in soil

No further relevant information available.

. Additional ecological information:

. General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

. Results of PBT and vPvB assessment

. PBT:

Not applicable.

. vPvB:

Not applicable.

. Other adverse effects

No further relevant information available.

13 Disposal considerations

. Waste treatment methods

. Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

. Uncleaned packagings:

. Recommendation:

Disposal must be made according to official regulations.

. Recommended cleansing agent:

Water, if necessary with cleansing agents.

14 Transport information

. UN-Number

. DOT/TDG, ADR, IMDG, IATA

UN1950

. UN proper shipping name

. DOT/TDG

Aerosols, flammable

. ADR

1950 Aerosols

. IMDG

AEROSOLS

. IATA

AEROSOLS, flammable

. Transport hazard class(es)

. DOT/TDG (Transport dangerous goods):



. Class

2.1 Gases

. Label

2.1

. ADR



. Class

2 5F Gases

. Label

2.1

. IMDG, IATA



. Class

2.1 Gases

. Label

2.1

. Packing group

. DOT/TDG, ADR, IMDG, IATA

Void

. Environmental hazards:

Not applicable.

. Special precautions for user

Warning: Gases

. Hazard identification number (Kemler code):

-

. EMS Number:

F-D,S-U

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. Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
. Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
. Transport/Additional information:	
. ADR	
. Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
. IMDG	
. Limited quantities (LQ)	1L
. Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
. UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

15 Regulatory information

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

No further relevant information available.

. Sara

. Section 355 (extremely hazardous substances):

None of the ingredients is listed.

. Section 313 (Specific toxic chemical listings):

CAS: 67-63-0 | propan-2-ol

. TSCA (Toxic Substances Control Act):

CAS: 106-97-8 | butane (containing $\leq 0,1$ % butadiene (106-99-0))

ACTIVE

CAS: 67-63-0 | propan-2-ol

ACTIVE

CAS: 74-98-6 | propane

ACTIVE

CAS: 294-62-2 | Cyclododecan

ACTIVE

CAS: 75-28-5 | isobutane (containing $\leq 0,1$ % butadiene (106-99-0))

ACTIVE

CAS: 74-84-0 | ethane

ACTIVE

. MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

. Canadian substance listings:

. Canadian Domestic Substances List (DSL)

CAS: 106-97-8 | butane (containing $\leq 0,1$ % butadiene (106-99-0))

CAS: 67-63-0 | propan-2-ol

CAS: 74-98-6 | propane

CAS: 75-28-5 | isobutane (containing $\leq 0,1$ % butadiene (106-99-0))

CAS: 74-84-0 | ethane

. Canadian Non-Domestic Substances List (NDSL)

CAS: 294-62-2 | Cyclododecan

. Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

. Canadian Ingredient Disclosure list (limit 1%)

CAS: 106-97-8 | butane (containing $\leq 0,1$ % butadiene (106-99-0))

CAS: 67-63-0 | propan-2-ol

. GHS label elements

. Hazard pictograms

The product is classified and labeled according to the Globally Harmonized System (GHS).



GHS02 GHS04 GHS07

. Signal word

Danger

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- . Hazard-determining components of labeling: propan-2-ol
Hydrocarbons, C7-C9, n-Alkanes, Isoalkanes, Cycloalkanes
- . Hazard statements: Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
May cause drowsiness or dizziness.
- . Precautionary statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Store in a well-ventilated place.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- . **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- . **Department issuing SDS:** Environment protection department.
- . **Contact:**
- . Date of the latest revision of the safety data sheet: 01/13/2023
- . Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
- . * Data compared to the previous version altered.

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