



Printing date 10.01.2020 Version number 1 Revision: 10.01.2020

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

· 1.1 Product identifier

· Trade name: <u>BAO-Spray 800</u> · Article number: 800-900

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- · Application of the substance / the mixture Surface protection
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: BAO-Chemie GmbH & Co. KG Gohrweide 17 DE 46238 Bottrop Deutschland

Telefon/Telefax

+49 (0) 2041-72080/+49 (0) 2041-720820

Ansprechpartner für Informationen E-Mail: info@bao-chemie.de

- · Further information obtainable from: Product safety department
- · 1.4 Emergency telephone number: +49 (0)30-30 68 6-700 Giftnotruf Charité Berlin, Deutschland

#### SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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#### · 2.2 Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

#### · Hazard pictograms







GHS02

GHS05

#### · Signal word Danger

#### · Hazard-determining components of labelling:

butan-1-ol

4-methylpentan-2-one

butanol

n-butyl acetate

#### · Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation. H318 Causes serious eye damage.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

#### · Precautionary statements

P210	Keep away from heat,	hot surfaces, .	sparks, open į	flames and o	ther ignition sources. I	Vo
	1 •					

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area.

Wear eye protection / face protection. P280 P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. P410+P412

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

#### · 2.3 Other hazards

#### · Results of PBT and vPvB assessment

· PBT: Not applicable. · vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

#### · 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 115-10-6	dimethyl ether	25-50%
EINECS: 204-065-8	🕸 Flam. Gas 1, H220; Press. Gas C, H280	
CAS: 108-10-1	4-methylpentan-2-one	2.5-10%
EINECS: 203-550-1	♠ Flam. Liq. 2, H225; ♠ Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	
Index number: 606-004-00-4	H319; STOT SE 3, H335	
Reg.nr.: 01-211947398030		

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G1 G 122 0 C 1		itd. of page
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29-xxxx	n-butyl acetate  Flam. Liq. 3, H226; STOT SE 3, H336	2.5-10%
CAS: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5 Reg.nr.: 01-2119475103-46-xxxx	ethyl acetate Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%
CAS: 71-36-3 EINECS: 200-751-6 Index number: 603-004-00-6 Reg.nr.: 01-2119484630-38-xxxx	butan-1-ol  Flam. Liq. 3, H226; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	2.5-10%
CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0 Reg.nr.: 01-2119457558-25-xxxx	propan-2-ol	<1.25%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21-xxxx	propane Flam. Gas 1, H220; Press. Gas C, H280	<1.25%
CAS: 78-83-1 EINECS: 201-148-0 Index number: 603-108-00-1	butanol <b>♦</b> Flam. Liq. 3, H226; <b>♦</b> Eye Dam. 1, H318; <b>♦</b> Skin Irrit. 2, H315; STOT SE 3, H335-H336	<1.25%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35-xxxx	ethylbenzene  Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	<1.25%
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 Reg.nr.: 01-2119474691-32-xxxx	butane, pure Flam. Gas 1, H220; Press. Gas C, H280	<1.25%
CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3 Reg.nr.: 01-2119457435-35-xxxx	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	<1.25%
CAS: 108-88-3 EINECS: 203-625-9 Index number: 601-021-00-3 Reg.nr.: 01-2119471310-51-xxxx	toluene  Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	<1.25%
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg nr : 01-2119488216-32-xxxx	xylene  Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<1.25%

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

## SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- $\cdot \textit{General information: } \textit{Personal protection for the First Aider.}$
- · After inhalation:

Supply fresh air.

Seek medical treatment in case of complaints.

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· After skin contact:

*Immediately wash with water and soap and rinse thoroughly.* 

If skin irritation continues, consult a doctor.

- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- · 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

## SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Can form explosive gas-air mixtures.
- · 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

· Additional information Cool endangered receptacles with water spray.

#### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 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.

## SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about fire and explosion protection:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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Pressurised 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.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions: Protect from heat and direct sunlight.
- $\cdot$  7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

· 8.1 Con	atrol parameters
· Ingredi	ents with limit values that require monitoring at the workplace:
CAS: 1	08-10-1 4-methylpentan-2-one
IOELV	Short-term value: $208 \text{ mg/m}^3$ , $50 \text{ ppm}$ Long-term value: $83 \text{ mg/m}^3$ , $20 \text{ ppm}$
CAS: 1	41-78-6 ethyl acetate
IOELV	Short-term value: 1468 mg/m³, 400 ppm Long-term value: 734 mg/m³, 200 ppm
CAS: 1	00-41-4 ethylbenzene
IOELV	Short-term value: 884 mg/m³, 200 ppm Long-term value: 442 mg/m³, 100 ppm Skin
CAS: 1	07-98-2 1-methoxy-2-propanol
IOELV	Short-term value: 568 mg/m³, 150 ppm

Long-term value: 375 mg/m³, 100 ppm Skin

#### CAS: 108-88-3 toluene

IOELV Short-term value: 384 mg/m³, 100 ppm Long-term value: 192 mg/m³, 50 ppm

Skin

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· Respiratory protection:

Short term filter device:

Filter A/P2

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### · Protection of hands:



· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.4$  mm

· 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

SECTION 9: Physical and chemic	cat properties
9.1 Information on basic physical and ch	nemical properties
General Information	
Appearance:	
Form:	Aerosol
Colour:	Different according to colouring
Odour:	Solvent-like
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Not applicable, as aerosol.
Flash point:	-84 °C
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air vapour mixtures are possible.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	11.5 Vol %
Oxidising properties	Not determined.
Vapour pressure at 20 °C:	97 hPa
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not applicable.

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· Solubility in / Miscibility with		
water:	Not miscible or difficult to mix.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Organic solvents:	41.0 %	
VOC (EC) %	92.10 %	
VOC(EC) g/l	721.0 g/l	
VOCV (CH)	92.10 %	
· 9.2 Other information	No further relevant information available.	

### SECTION 10: Stability and reactivity

- $\cdot \textbf{10.1 Reactivity} \ \textit{No further relevant information available}.$
- · 10.2 Chemical stability
- $\cdot \textit{Thermal decomposition / conditions to be avoided:} \ \textit{No decomposition if used according to specifications.}$
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- $\cdot$  10.4 Conditions to avoid No further relevant information available.
- $\cdot$  10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

### SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

CAS: 100-	10-1 4-me	ethylpentan-2-one
Oral	LD50	2,080 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rab)
Inhalative	LC50/4h	8.3-16.6 ppm (rat)
CAS: 123-	86-4 n-bu	tyl acetate
Oral	LD50	13,100 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
Inhalative	LC50/4h	>21 ppm (rat)
CAS: 141-	78-6 ethyl	acetate
Oral	LD50	5,620 mg/kg (rabbit)
Inhalative	LC50/4h	1,600 ppm (rat)
CAS: 71-3	6-3 butan	-1-ol
Oral	LD50	790 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
Inhalative	LC50/4h	8,000 ppm (rat)
CAS: 67-6	3-0 propa	n-2-ol
Oral	LD50	5,045 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)

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Inhalative	LC50/4h	30 ppm (rat)
CAS: 74-98	8-6 propa	ne
Inhalative	LC50/4h	$mg/m^3$ (rat)
CAS: 78-83	3-1 butan	ol
Oral	LD50	2,460 mg/kg (rat)
Dermal	LD50	3,400 mg/kg (rabbit)
CAS: 100-4	41-4 ethyl	lbenzene
Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rabbit)
CAS: 106-9	97-8 buta	ne, pure
Inhalative	LC50/4h	658 ppm (rat)
CAS: 107-9	98-2 1-me	ethoxy-2-propanol
Oral	LD50	5,660 mg/kg (rat)
Dermal	LD50	13,000 mg/kg (rabbit)
CAS: 108-8	88-3 tolue	ene
Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4h	5,320 ppm (mouse)
CAS: 1330	-20-7 xyle	ene
Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)

- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

 $\cdot \textit{ Serious eye damage/irritation }$ 

Causes serious eye damage.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

- · 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.

#### SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxi	icity:
CAS: 123-8	6-4 n-butyl acetate
LC50 (96h)	18 mg/L (Pimephales promelas)
EC50 (48h)	44 mg/L (Daphnia magna)
EC50/24h	73 mg/l (Daphnia magna)
EC50/72h	647.7  mg/l  (S)
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CAS: 78-83-1 butanol

LL50/96h 1,000 mg/l (Leuciscus idus auratus)

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

### SECTION 13: Disposal considerations

· 13.1 Waste treatment methods:

Containers can be recycled if completely empty; if not, dispose product/containers as dangerous waste. Observe local regulations.

· European waste catalogue

16 05 04\* gases in pressure containers (including halons) containing hazardous substances

### SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, IMDG, IATA

UN1950

- · 14.2 UN proper shipping name
- $\cdot ADR$

UN1950 AEROSOLS

- · IMDG AEROSOLS
- · IATA

AEROSOLS, flammable

- · 14.3 Transport hazard class(es)
- $\cdot ADR$



· Class 2 5F Gases.

· Label

· IMDG, IATA



· Class
 · Label
 2.1
 2.1

pel 2.1

2.1

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· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Gases.
· Hazard identification number (Kemler co	ode): -
· EMS Number:	F- $D$ , $S$ - $U$
· Stowage Code	SW1 Protected from sources of heat.
	SW2 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
	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.
· 14.7 Transport in bulk according to Ann	ex II of
Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· <b>ADR</b>	
· Limited quantities (LQ)	IL
· Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0
- · · · · · · · · · · · · · · · · · · ·	Not permitted as Excepted Quantity
	The permitted as Encepted Enaments

### SECTION 15: Regulatory information

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Methanol
- · Seveso category P3a FLAMMABLE AEROSOLS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 48
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 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.

#### · Relevant phrases

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.

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# Safety data sheet according to 1907/2006/EC, Article 31

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H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

H373 May cause damage to the hearing organs through prolonged or repeated exposure.

#### · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases - Category 1

Aerosol 1: Aerosols - Category 1

Press. Gas C: Gases under pressure - Compressed gas

Flam. Liq. 2: Flammable liquids - Category 2

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 4: Acute toxicity - inhalation - Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard - Category 1

### \* \* Data compared to the previous version altered.

EU