

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 1 of 14

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

1.1. Product identifier

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

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

Use of the substance/mixture

Reference standard for analysis.

1.3. Details of the supplier of the safety data sheet

Company name:	WITEGA Laboratorien Berlin-Adlershof GmbH	
Street:	James-Franck-Strasse 4	
Place:	D-12489 Berlin	
Telephone:	+493063922001	Telefax: +493063922007
E-mail:	witega@witega.de	
Internet:	www.witega.de	

1.4. Emergency telephone number:

+493063922001

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225

Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Danger

Pictograms:



Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H360D May damage the unborn child.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/protective clothing and eye protection/face protection.

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

P381 In case of leakage, eliminate all ignition sources.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 2 of 14

3.2. Mixtures

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 3 of 14

Relevant ingredients

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (GB CLP Regulation)	
64-17-5	ethanol; ethyl alcohol	95 - < 100 %
	200-578-6	
	603-002-00-5	
	Flam. Liq. 2; H225	
1173021-09-4	Clenproperol-D7	< 1 %
	Skin Irrit. 2, Eye Irrit. 2B, STOT SE 3; H315 H320 H335	
1228182-44-2	Cimaterol-D7	< 1 %
	Acute Tox. 4; H302	
1325559-14-5	Tulobuterol-D9 hydrochloride	< 1 %
	Acute Tox. 4; H302	
1246819-04-4	Cimbuterol-D9	< 1 %
1353867-83-0	Mabuterol-D9 hydrochloride	< 1 %
	Acute Tox. 4; H302	
129138-58-5	Clenbuterol-D9	< 1 %
	Acute Tox. 3; H301	
1325559-18-9	Mapenterol-D11 hydrochloride	< 1 %
	Skin Irrit. 2, Eye Irrit. 2B, STOT SE 3; H315 H320 H335	
1353940-55-2	Brombuterol-D9	< 1 %
1794793-20-6	Clenpenterol-D5 hydrochloride	< 1 %
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2B, STOT SE 3; H302 H315 H320 H335	
	Phenylethanolamine A-D3	< 1 %
	Acute Tox. 4; H302	
1781417-68-2	Salbutamol-D9 acetate	< 1 %
	Acute Tox. 4; H302	
	Orciprenaline-D7 acetate hemihydrate	< 1 %
	Skin Irrit. 2, Eye Irrit. 2B, STOT SE 3; H315 H320 H335	
	Terbutaline-D9 acetate	< 1 %
	Repr. 2, Resp. Sens. 1, Skin Sens. 1; H361 H334 H317	
	Hydroxymethylclenbuterol-D6 hydrochloride	< 1 %
	Acute Tox. 4; H302	
	Carbuterol-D9 acetate sesquihydrate	< 1 %
	Skin Irrit. 2, Eye Irrit. 2B, STOT SE 3; H315 H320 H335	
1794752-28-5	Clenisopenterol-D7 hydrochloride	< 1 %
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2B, STOT SE 3; H302 H315 H320 H335	
	Bromchlorbuterol-D9 hydrochloride	< 1 %
	Acute Tox. 4; H302	
	Fenoterol-D6 acetate	< 1 %
	Acute Tox. 4; H302	
	Ractopamine-D6 acetate	< 1 %

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 4 of 14

	Acute Tox. 4, Acute Tox. 4, Skin Sens. 1; H332 H302 H317	
1217818-36-4	Zilpaterol-D7	< 1 %
	Repr. 2, Lact., Acute Tox. 4, Acute Tox. 4, STOT RE 1; H361 H362 H332 H302 H372	
497063-94-2	Salmeterol-D3	< 1 %
2706004-35-3	Isoxsuprine-D6 hydrochloride	< 1 %
	Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H302 H400 H410	
1346599-61-8	Clencyclohexerol-D10	< 1 %

Full text of H and EUH statements: see section 16.

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 5 of 14

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
64-17-5	200-578-6	ethanol; ethyl alcohol	95 - < 100 %
		inhalation: LC50 = 95,6 mg/l (vapours); oral: LD50 = 6200 mg/kg	
1228182-44-2		Cimaterol-D7	< 1 %
		oral: ATE = 500 mg/kg	
1325559-14-5		Tulobuterol-D9 hydrochloride	< 1 %
		oral: LD50 = 850 mg/kg	
1246819-04-4		Cimbuterol-D9	< 1 %
		inhalation: Data lacking (gases); dermal: Data lacking; oral: Data lacking	
1353867-83-0		Mabuterol-D9 hydrochloride	< 1 %
		oral: ATE = 500 mg/kg	
129138-58-5		Clenbuterol-D9	< 1 %
		oral: LD50 = 147 mg/kg	
1353940-55-2		Brombuterol-D9	< 1 %
		inhalation: Data lacking (gases); dermal: Data lacking; oral: Data lacking	
1794793-20-6		Clenpenterol-D5 hydrochloride	< 1 %
		oral: ATE = 500 mg/kg	
		Phenylethanolamine A-D3	< 1 %
		oral: ATE = 500 mg/kg	
1781417-68-2		Salbutamol-D9 acetate	< 1 %
		oral: LD50 = 660 mg/kg	
		Orciprenaline-D7 acetate hemihydrate	< 1 %
		oral: LD50 = 5538 mg/kg	
		Terbutaline-D9 acetate	< 1 %
		oral: LD50 = 8700 mg/kg	
		Hydroxymethylclenbuterol-D6 hydrochloride	< 1 %
		oral: ATE = 500 mg/kg	
		Carbuterol-D9 acetate sesquihydrate	< 1 %
		oral: LD50 = 3453 mg/kg	
1794752-28-5		Clenisopenterol-D7 hydrochloride	< 1 %
		oral: ATE = 500 mg/kg	
		Bromchlorbuterol-D9 hydrochloride	< 1 %
		oral: ATE = 500 mg/kg	
		Fenoterol-D6 acetate	< 1 %
		oral: ATE = 500 mg/kg	
		Ractopamine-D6 acetate	< 1 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: ATE = 500 mg/kg	
1217818-36-4		Zilpaterol-D7	< 1 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 890 mg/kg	
2706004-35-3		Isoxsuprine-D6 hydrochloride	< 1 %
		oral: LD50 = 1750 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data)

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 6 of 14

sheet if possible).

After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After contact with skin

Remove contaminated, saturated clothing immediately. Subsequently wash off with: Water and soap

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Get immediate medical advice/attention.

Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps.

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

No data available

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet. Foam. Dry extinguishing powder. Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Pyrolysis products, toxic. In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Use personal protection equipment. Do not breathe gas/fumes/vapour/spray.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Take up dust-free and set down dust-free.

6.4. Reference to other sections

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Advice on general occupational hygiene

Use personal protection equipment.

7.2. Conditions for safe storage, including any incompatibilities

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 7 of 14

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Avoid: UV-radiation/sunlight

Further information on storage conditions

storage temperature: 2-8°C

7.3. Specific end use(s)

none

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye glasses with side protection

Hand protection

Wear suitable gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

lab coat

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	colourless	
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		No data available
Water solubility:		No data available
Solubility in other solvents		
No data available		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Density:		No data available
Relative vapour density:		No data available

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 8 of 14

9.2. Other information

Information with regard to physical hazard classes

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Other safety characteristics

Evaporation rate:

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with : Oxidising agent, Alkali (lye), Etchant and acids

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Do not expose to temperatures exceeding 50 °C/122 °F.

10.5. Incompatible materials

Oxidising agent, Alkali (lye), Etchant and acids

10.6. Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 9 of 14

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol; ethyl alcohol				
	oral	LD50 mg/kg 6200	Rat	IUCLID	
	inhalation (4 h) vapour	LC50 95,6 mg/l	Rat	RTECS	
1228182-44-2	Cimaterol-D7				
	oral	ATE mg/kg 500			
1325559-14-5	Tulobuterol-D9 hydrochloride				
	oral	LD50 mg/kg 850	Rat		
1246819-04-4	Cimbuterol-D9				
	oral	Data lacking			
	dermal	Data lacking			
	inhalation	Data lacking			
1353867-83-0	Mabuterol-D9 hydrochloride				
	oral	ATE mg/kg 500			
129138-58-5	Clenbuterol-D9				
	oral	LD50 mg/kg 147	Mouse		
1353940-55-2	Brombuterol-D9				
	oral	Data lacking			
	dermal	Data lacking			
	inhalation	Data lacking			
1794793-20-6	Clenpenterol-D5 hydrochloride				
	oral	ATE mg/kg 500			
	Phenylethanolamine A-D3				
	oral	ATE mg/kg 500			
1781417-68-2	Salbutamol-D9 acetate				
	oral	LD50 mg/kg 660	Rat		
	Orciprenaline-D7 acetate hemihydrate				
	oral	LD50 mg/kg 5538	Rat		
	Terbutaline-D9 acetate				
	oral	LD50 mg/kg 8700	Rat		
	Hydroxymethylclenbuterol-D6 hydrochloride				

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 10 of 14

	oral	ATE mg/kg	500			
Carbuterol-D9 acetate sesquihydrate						
	oral	LD50 mg/kg	3453	Rat		
1794752-28-5	Clenisopenterol-D7 hydrochloride					
	oral	ATE mg/kg	500			
Bromchlorbuterol-D9 hydrochloride						
	oral	ATE mg/kg	500			
Fenoterol-D6 acetate						
	oral	ATE mg/kg	500			
Ractopamine-D6 acetate						
	oral	ATE mg/kg	500			
	inhalation vapour	ATE	11 mg/l			
	inhalation dust/mist	ATE	1,5 mg/l			
1217818-36-4	Zilpaterol-D7					
	oral	LD50 mg/kg	890	Rat		
	inhalation vapour	ATE	11 mg/l			
	inhalation dust/mist	ATE	1,5 mg/l			
2706004-35-3	Isoxsuprine-D6 hydrochloride					
	oral	LD50 mg/kg	1750	Rat		

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects 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

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

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.

Specific effects in experiment on an animal

No data available

SECTION 12: Ecological information

12.1. Toxicity

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 11 of 14

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

No data available

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol; ethyl alcohol					
	Acute crustacea toxicity	EC50 9268 - 14221 mg/l	48 h	Daphnia magna	IUCLID	
1173021-09-4	Clenproperol-D7					
	Aquatic toxicity	Data lacking				
1246819-04-4	Cimbuterol-D9					
	Aquatic toxicity	Data lacking				
1353940-55-2	Brombuterol-D9					
	Aquatic toxicity	Data lacking				

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol; ethyl alcohol	-0,31

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

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

Contaminated packaging

This material and its container must be disposed of as hazardous waste.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:

UN 1170

14.2. UN proper shipping name:

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es):

3

14.4. Packing group:

III

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 12 of 14

Hazard label: 3



Classification code: F1
 Special Provisions: 144 601
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 30
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Special Provisions: 144 601
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: 144 223
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1170
14.2. UN proper shipping name: ETHANOL SOLUTION
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: A3 A58 A180
 Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 13 of 14

IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

14.6. Special precautions for user

No transport as bulk according to IBC Code.

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

Other applicable information

Hazchem code: •2Y

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

15.2. Chemical safety assessment

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

SECTION 16: Other information

Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Skin Irrit: Skin irritation
Eye Irrit: Eye irritation
Resp. Sens: Respiratory sensitisation
Skin Sens: Skin sensitisation
Repr: Reproductive toxicity
Lact: Lactation effects
STOT SE: Specific target organ toxicity - single exposure
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H320	Causes eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H362	May cause harm to breast-fed children.

Safety Data Sheet

according to UK REACH Regulation

Beta agonists Mix; various concentrations in Ethanol (Mix 2)

Revision date: 16.04.2025

Product code: BA_MIX018-AMP

Page 14 of 14

H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Further Information

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. The substances are only for R&D. Do not use as a drug, in household or other applications.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)