



TOP COOL SPRAY (COOL-AZ)

TOP COOL SPRAY COOLS UP TO $-45\text{ }^{\circ}\text{C}$

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

1. 1. Product identifier

AKZENTA Top Cool Spray (COOL-AZ)

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

Use of the substance/mixture:

Aerosol

1. 3. Details of the supplier of the safety data sheet

Company name:	Akzenta International SA
Street:	Via Giuseppe Motta, 24
Place:	CH-6830, Chiasso, Switzerland
Telephone:	+41 (0) 91 921 14 92
Telefax:	+41 (0) 91 682 85 20
e-mail:	business@akzenta.ch
Internet:	www.akzenta.com
Responsible Department:	laboratory

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Aerosol: Aerosol 1

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word:

Danger

Pictograms:



Hazard statements:

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

Precautionary statements:

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

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

P251 Do not pierce or burn, even after use.

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

Special labelling of certain mixtures:

EUH208 Contains (R)-p-mentha-1,8-diene, d-limonene. May produce an allergic reaction.

2.3. Other hazards

Refrigerated liquefied gas. Contact with the product can cause cold burns or frostbite. Even after use and until complete evaporation of the flammable components, there is still a danger of an explosive steam-air mixture forming.

SECTION 3: Composition/information on ingredients

3.1. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
106-97-8	butane			60 - < 65 %
	203-448-7		01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			
74-98-6	propane			25 - < 30 %
	200-827-9		01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
64-17-5	ethanol, ethyl alcohol			2.5 - < 5 %
	200-578-6		01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			0.1 - < 0.5 %
	200-661-7		01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene			< 0.1 %
	227-813-5		601-029-00-7	
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H315 H317 H400 H410			

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

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 sheet if possible).

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

Refrigerated liquefied gas. Contact with the product can cause cold burns or frostbite.

4. 3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5. 1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

High power water jet

5. 2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Vapours can form explosive mixtures with air.

5. 3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6. 1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition.

6. 2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6. 3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat therecovered material as prescribed in the section on waste disposal.

6. 4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7. 1. Precautions for safe handling

Advice on safe handling

Do not pierce or burn, even after use.

Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Further information on handling

Heating causes rise in pressure with risk of bursting.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Keep away from food, drink and animal feedingstuffs.

Specific end use(s)

Aerosol

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
Worker DNEL, long-term		dermal	systemic	888 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	500 mg/m ³
Consumer DNEL, long-term		dermal	systemic	319 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	89 mg/m ³
Consumer DNEL, long-term		oral	systemic	26 mg/kg bw/day

8.2. Exposure controls

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection

Wear eye/face protection. Suitable eye protection: Eye glasses with side protection DIN EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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.

Wear suitable gloves. Suitable gloves type: Gloves with long cuffs, heat insulating

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

Usually no personal respirative protection necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

pH-Value:	liquid	
Colour:	colourless clear	
Odour:	fruity	
Test method		
pH-Value:	not applicable	
Changes in the physical state		
Melting point:	not applicable	
Initial boiling point and boiling range:	< -20 °C	
Flash point:	< -20 °C	
Sustaining combustion:	No data available	
Flammability		
Solid:	not applicable	
Gas:	not applicable	
Explosive properties		
In use, may form flammable/explosive vapour-air mixture.		
Lower explosion limits:	1,8 vol. %	
Upper explosion limits:	8,4 vol. %	
Ignition temperature:	287 °C	
Auto-ignition temperature		
Solid:	not applicable	
Gas:	not applicable	
Decomposition temperature:	not determined	
Oxidizing properties		
Not oxidizing.		
Vapour pressure:	Vapour pressure: not determined	
Density (at 20 °C):	0,6 g/cm ³	calculated
Water solubility:	practically insoluble	
(at 20 °C)	practically insoluble	
Solubility in other solvents		
not determined		
Partition coefficient:	not determined	
Viscosity / kinematic:	not applicable	
Vapour density:	not determined	
Evaporation rate:	not determined	

9. 2. Other information

Solid content:

not determined

SECTION 10: Stability and reactivity

10. 1. Reactivity

Extremely flammable aerosol.

10. 2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10. 3. Possibility of hazardous reactions

No known hazardous reactions.

10. 4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10. 5. Incompatible materials

No information available.

10. 6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11. 1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose		Species	Source
64-17-5	ethanol, ethyl alcohol				
	oral	LD50	10470 mg/kg	Rat	OECD Guideline 401
	dermal	LD50	>2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LD50	>20 mg/l	Rat	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50	5840 mg/kg	Rat	
	dermal	LD50	13900 mg/kg	Rabbit	
	inhalative (4 h) vapour	LD50	47,5 mg/l	Rat	
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	oral	LD50	> 2000 mg/kg	Rat	
	dermal	LD50	> 2000 mg/kg	Rabbit	IUCLID

Irritation and corrosivity

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

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.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information**12. 1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	
74-98-6	propane					
	Acute fish toxicity	LC50	27,98 mg/l	96 h	Fish, no other information	ECHA
	Acute algae toxicity	ErC50	7,71 mg/l	96 h	Green algae	ECHA
64-17-5	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50	13480 mg/l	96 h	Pimephales promelas	ECHA
	Acute algae toxicity	ErC50		96 h	Selenastrum capricornutum	OECD Guideline 201
	Acute crustacea toxicity	EC50		48 h	Daphnia magna	DIN 38412 Teil 11
	Algae toxicity	NOEC		5 d	Skeletonema costatum	ECHA
	Crustacea toxicity	NOEC		9 d	Daphnia magna	ECHA
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50		96 h	Pimephales promelas	OECD Guideline 203
	Acute algae toxicity	ErC50		72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50		48 h	Daphnia magna (Big water flea)	
	Acute bacteria toxicity		(>100 mg/l)			
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene					
	Acute fish toxicity	LC50		96 h	Pimephales promelas	
	Acute crustacea toxicity	EC50		48 h	Daphnia magna	

12. 2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64-17-5	ethanol, ethyl alcohol			
	Biodegradation	84%	20	
	Readily biodegradable (according to OECD criteria).			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
		95%	21	
	Readily biodegradable (according to OECD criteria).			

12. 3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	butane	2,89
64-17-5	ethanol, ethyl alcohol	-0,3
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
5989-27-5	R)-p-mentha-1,8-diene, d-limonene	4,23

BCF

CAS No	Chemical name	BCF	Species	Source
64-17-5	ethanol, ethyl alcohol	1	Cyprinus carpio	ECHA

12. 4. Mobility in soil

The product has not been tested.

12. 5. Results of PBT and vPvB assessment

The product has not been tested.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13. 1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances
Classified as hazardous waste.

Contaminated packaging

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

UN number: UN 1950
UN proper shipping name: AEROSOLS
Transport hazard class(es): 2
Packing group: -
Hazard label: 2.1



Classification code: 5F

Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

UN number: UN 1950
UN proper shipping name: AEROSOLS
Transport hazard class(es): 2
Packing group: -
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0

Marine transport (IMDG)


UN number: UN 1950
UN proper shipping name: AEROSOLS
Transport hazard class(es): 2.1
Packing group: -
Hazard label: 2.1



Special Provisions: 63, 190, 277, 327, 344, 959
Limited quantity: 1000 mL
Excepted quantity: E0
EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

UN number: UN 1950
UN proper shipping name: AEROSOLS, flammable
Transport hazard class(es): 2.1
Packing group: -

Hazard label:	2.1
	
Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14. 1. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14. 2. Special precautions for user

Warning: Flammable gases.

14. 3. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	100 % (600 g/l)
2004/42/EC (VOC):	100 % (600 g/l)

Additional information

To follow: 850/2004/EC, 1107/2009/EC, 649/2012/EC Aerosol directive (75/324/EEC).

National regulatory information

Employment restrictions: 2010/75/EU (VOC):	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	1 - slightly water contaminating
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

15. 2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,12,13,14,15.

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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH208	Contains (R)-p-mentha-1,8-diene, d-limonene. May produce an allergic reaction.

Further Information

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.

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