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

1.1. Product identifier

Name of product

Zinc-Alu-Spray
Code-Nr. 110020

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

Recommended intended purpose(s)
Technical Aerosols

1.3. Details of the supplier of the safety data sheet

Distributor

WEICON GmbH & Co. KG
Königsberger Str. 255, DE-48157 Münster
Phone : +49(0)251 / 9322 - 0, Fax : +49(0)251 / 9322 - 244
E-Mail : msds@weicon.de
Internet : www.weicon.de

Advice

Produktsicherheit / Product-Safety-Department
Phone : +49(0)251 / 9322 - 0
Fax : +49(0)251 / 9322 - 244
E-mail (competent person):
msds@weicon.de

1.4. Emergency telephone number

EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English)
TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English)

Manufacturer

WEICON GmbH & Co. KG
Königsberger Str. 255, DE-48157 Münster

1.4. Emergency telephone number

GIFTNOTRUF/TRANSPORTNOTRUF - Deutschland (24h):
Tel: ++49 69 222 25285 (Deutsch, Englisch)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Aerosol 1	**H222, H229**	
Eye Irrit. 2	**H319**	
STOT SE 3	**H336**	
STOT RE 2	**H373**	
Aquatic Chronic 2	**H411**	

Hazard Statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

GHS02 GHS07 GHS08 GHS09

Signal word
Danger

Hazard Statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic 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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection.
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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P403	Store in a well-ventilated place.
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 hazardous or special waste collection point.

Hazardous ingredients for labeling
acetone, ethyl-acetate, Solvent naphtha (petroleum), light arom. (NOTA P), Naphtha (petroleum), hydrodesulfurized heavy, xylene

Supplemental Hazard information (EU)
Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards
Caution! Container under pressure.

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/ information on ingredients

3.1. Substances
not applicable

3.2. Mixtures
Description
Zinc spray based on synthetic resin binder, solvent and pigments.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
67-64-1	200-662-2	acetone	10 < 20	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
7429-90-5	231-072-3	aluminium powder (stabilised)	< 10	Water-react. 2, H261 / Flam. Sol. 1, H228
141-78-6	205-500-4	ethyl-acetate	10 - 20	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
7440-66-6	231-175-3	zinc powder - zinc dust (stabilized)	1 < 2,5	Aquatic Acute 1, H400 M=1 / Aquatic Chronic 1, H410 M=1
64742-95-6	265-199-0	Solvent naphtha (petroleum), light arom. (NOTA P)	2,5 < 10	Flam. Liq. 3, H226 / Asp. Tox. 1, H304 / STOT SE 3, H335, H336 / Aquatic Chronic 2, H411 / Skin Irrit.2, H315 / , EUH066
74-98-6	200-827-9	propane	20 < 25	Flam. Gas 1, H220 / Press. Gas, H280
64742-82-1	265-185-4	Naphtha (petroleum), hydrodesulfurized heavy	1 < 2,5	Flam. Liq. 3, H226 / Asp. Tox. 1, H304 / Aquatic Chronic 2, H411 / STOT SE 3, H336 / STOT RE 1, H372
106-97-8	203-448-7	Butan (1,3 Butadiene <0,1%)	20 < 25	Flam. Gas 1, H220 / Press. Gas, H280
1330-20-7	215-535-7	xylene	1 < 10	Flam. Liq. 3, H226 / STOT RE 2, H373 / Asp. Tox. 1, H304 / Acute Tox. 4, H312, H332 / Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / STOT SE 3, H335

REACH

CAS No	Name	REACH registration number
67-64-1	acetone	01-2119471330-49
7429-90-5	aluminium powder (stabilised)	01-2119529243-45
141-78-6	ethyl-acetate	01-2119475103-46
7440-66-6	zinc powder - zinc dust (stabilized)	01-2119467174-37
64742-95-6	Solvent naphtha (petroleum), light arom. (NOTA P)	01-2119455851-35
74-98-6	propane	01-2119486944-21
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	01-2119458049-33
106-97-8	Butan (1,3 Butadiene <0,1%)	01-2119474691-32
1330-20-7	xylene	01-2119488216-32

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Remove contaminated soaked clothing immediately.

In case of inhalation
Remove the casualty into fresh air and keep him immobile.
In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off with soap and water.
Consult a doctor if skin irritation persists.

In case of eye contact
In case of contact with eyes rinse with plenty of water carefully. In the event of persistent symptoms seek medical treatment.

In case of ingestion
Do not induce vomiting.
Call for a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed
Physician's information / possible symptoms
Coughing
Headache

4.3. Indication of any immediate medical attention and special treatment needed
No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Alcohol-resistant foam
Dry powder
Carbon dioxide
Dry sand

Unsuitable extinguishing media
water

5.2. Special hazards arising from the substance or mixture
May lead to formation of explosive/easily ignitable vapour air mixtures.
Danger of bursting
In case of fire formation of dangerous gases possible.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.
Do not inhale explosion and/or combustion gases.

Additional information
Vapours are heavier than air and will spread on the ground.
Cool endangered containers with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.
Use breathing apparatus if exposed to vapours/dust/aerosol.

6.2. Environmental precautions
Inform pollution control authorities if product gets into the sewerage systems or open waters.
Do not discharge into the drains or bodies of water..
Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up
Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).
After taking up the material dispose according to regulation.

Additional Information
Sort out leaky cans and dispose according to regulations.

6.4. Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Ventilate closed rooms at ground level.
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.
Take measures against electrostatically charging.

General protective measures
Avoid contact with eyes and skin
Do not inhale aerosols
Ensure sufficient ventilation.

Hygiene measures
At work do not eat, drink, smoke or take drugs.
Remove soiled or soaked clothing immediately.
Work in rooms with good ventilation.
Wash hands before breaks and after work.

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking
Do not spray on a naked flame or any incandescent material.
Pressurized container.
Do not pierce or burn even after use.
Vapours can form an explosive mixture with air.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep in closed original container.
Adhere to administrative regulations relating to storage of compressed gas cylinders / containers.

Advice on storage compatibility
Do not store together with animal feedstuffs.
Do not store together with food.

Further information on storage conditions
Store at +5 till +25 °C.
Protect from direct solar radiation.
Keep container dry, tightly closed and store at cool place.
Keep container in a well-ventilated place
Storage temperature may not exceed 50°C (=122°F).

7.3. Specific end use(s)
Recommendation(s) for intended use
See section 1.2

! SECTION 8: Exposure controls/personal protection

8.1. Control parameters
! Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
67-64-1	Acetone	8 hours	1210	500	EH40/2005
		Short-term	3620	1500	
106-97-8	Butane	8 hours	1450	600	EH40/2005
		Short-term	1810	750	
141-78-6	Ethyl acetate	8 hours		200	EH40/2005
		Short-term		400	
1330-20-7	Xylene, o-, m-, p- or mixed isomers	8 hours	220	50	EH40/2005
		Short-term	441	100	
64742-48-9	Naphtha (Erdöl) mit Wasserstoff behandelte, schwere (CH)	MAK, 8 hours	600	100	ZNS, MAK uss eingehalten werden
		Short-term	300	50	

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
67-64-1	acetone	8 hours	1210	500	

DNEL-/PNEC-values
DNEL worker

CAS No	Substance name	Value	Code	Remark
1330-20-7	xylene	289 mg/m3	DNEL acute inhalative (local)	
		180 mg/kg	DNEL long-term dermal (systemic)	
		289 mg/m3	DNEL acute inhalative (local)	
		289 mg/m3	DNEL acute inhalative (systemic)	
		77 mg/m3	DNEL long-term inhalative (systemic)	
141-78-6	ethyl-acetate	1468 mg/m3	DNEL acute inhalative (local)	
		63 mg/kg	DNEL long-term dermal (systemic)	
		734 mg/m3	DNEL long-term inhalative (local)	
		1468 mg/m3	DNEL acute inhalative (systemic)	
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	44 mg/kg	DNEL long-term dermal (systemic)	
		330 mg/m3	DNEL long-term inhalative (systemic)	
64742-95-6	Solvent naphtha (petroleum), light arom. (NOTA P)	150 mg/m3	DNEL long-term inhalative (systemic)	
		25 mg/kg	DNEL long-term dermal (systemic)	
67-64-1	acetone	1210 mg/m3	DNEL long-term inhalative (systemic)	
		2420 mg/m3	DNEL acute inhalative (local)	
		186 mg/kg	DNEL long-term dermal (systemic)	

DNEL-/PNEC-values (continued)

CAS No	Substance name	Value	Code	Remark
7429-90-5	aluminium powder (stabilised)	3,72 mg/m3	DNEL long-term inhalative (local)	
7440-66-6	zinc powder - zinc dust (stabilized)	83 mg/kg	DNEL long-term dermal (systemic)	
		5 mg/m3	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
1330-20-7	xylene	0,327 mg/l	PNEC aquatic, marine water	
		12,46 mg/kg	PNEC sediment, freshwater	
		0,327 mg/l	PNEC aquatic, freshwater	
		2,31 mg/kg	PNEC sediment, freshwater	
		12,46 mg/kg	PNEC sediment, marine water	
141-78-6	ethyl-acetate	0,24 mg/l	PNEC aquatic, freshwater	
		0,34 mg/kg	PNEC sediment, freshwater	
		0,115 mg/kg	PNEC sediment, marine water	
		0,024 mg/l	PNEC aquatic, marine water	
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	20 mg/l	PNEC sewage treatment plant (STP)	
		0,0749 mg/l	PNEC aquatic, freshwater	
64742-95-6	Solvent naphtha (petroleum), light arom. (NOTA P)	0,99 mg/kg	PNEC soil, marine water	
67-64-1	acetone	3,04 mg/kg	PNEC sediment, marine water	
		1,06 mg/l	PNEC aquatic, marine water	
		30,4 mg/kg	PNEC sediment, freshwater	
		10,6 mg/l	PNEC aquatic, freshwater	
7440-66-6	zinc powder - zinc dust (stabilized)	0,0061 mg/l	PNEC aquatic, marine water	
		0,0206 mg/l	PNEC aquatic, freshwater	
		117,8 mg/kg	PNEC sediment, freshwater	
		56,5 mg/kg	PNEC sediment, marine water	

Additional advice
The statutory local and national regulations have to be observed.

8.2. Exposure controls
Respiratory protection
In case of insufficient ventilation or long-term effect use breathing apparatus.
Breathing apparatus in the event of aerosol or mist formation.
Short-term: filter apparatus, filter AX/P2, otherwise environment-independent breathing apparatus.

Hand protection
In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.
Chemical protective gloves must be chosen carefully in view of their design and depending on the dependence on the concentration and amounts of dangerous goods used in the specific working tasks.
Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: butyl rubber, 0,7mm; 480min

Eye protection
tightly fitting goggles

Other protection measures
protective clothing

Appropriate engineering controls
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colour	Odour
aerosol	silver-grey	solvent-like

Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
boiling point	-44 °C				
melting point	not determined				
Flash point	not applicable				Aerosol
Vapourisation rate	not determined				
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	> 200 °C				estimate
Self ignition temperature					The product is not self-igniting.
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	not determined				
Vapour density	not determined				
Solubility in water					immiscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				

	Value	Temperature	at	Method	Remark
Decomposition temperature	not determined				
Viscosity dynamic	not applicable				
Viscosity kinematic	not applicable				

Oxidising properties
No information available.

Explosive properties
The product is considered non-explosive ; nevertheless explosive vapour/air mixtures can be generated .

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

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

10.3. Possibility of hazardous reactions
No information available.

10.4. Conditions to avoid
Keep away from heat.
Formation of inflammable vapour-air mixtures.

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
Carbon monoxide and carbon dioxide.

Thermal decomposition

Remark No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 2000 mg/kg	rat		CAS: 64742-95-6
LD50 acute dermal	> 5000 mg/kg			ATE
LC50 acute inhalation	> 5 mg/l ()		dust/mist	ATE

	Value/Validation	Species	Method	Remark
Skin irritation	low irritant effect - not necessary to label			
Eye irritation	irritant - risk of strong eye injuries			
Skin sensitization	non-sensitizing			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				No experimental information on genotoxicity in vivo available.
Reproduction-Toxicity				No indications of toxic effects were observed in reproduction studies in animals.
Carcinogenicity				No indications of carcinogenic effects are available from long-term trials.

Specific target organ toxicity (single exposure)
May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)
May cause damage to organs, if longer exposed.

Experiences made from practice
Often and long skin contact may cause degreasing and desiccation of the skin which may caus skin irritation.
Vapours may cause dizziness, headaches and tiredness
Risk of strong health injuries in case of long-term exposition.
Product may cause irreversible eye injuries.
Inhalation causes narcotic effect/intoxication.

Additional information
The product is to be handled with the caution usual with chemicals.
Other hazardous properties may not be excluded.
The product has not been tested. The information is derived from the properties of the individual components.

SECTION 12: Ecological information

12.1. Toxicity
No information available.

12.2. Persistence and degradability
No information available.

12.3. Bioaccumulative potential
The product has not been tested. Because of the product's consistency and low solubility in water bioavailability is not likely.

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
General regulation
Toxic to aquatic life with long lasting effects.
Do not allow uncontrolled leakage of product into the environment.
Product is not allowed to be discharged into aquatic environment.
The ecotoxic effect of the product has not been tested. The information on this is given on the basis of details in the literature.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.	Name of waste
16 05 04*	gases in pressure containers (including halons) containing hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product
Remove in accordance with local official regulations.
Dispose of as hazardous waste.

Recommendations for packaging
Dispose of according to the local waste regulations.

General information
For proper waste disposal a complete emptying of the tin is necessary.
Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

! SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1950	1950	1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS (zinc powder - zinc dust (stabilized))	Aerosols, flammable
14.3. Transport hazard class(es)	2.1	2.1	2.1
14.4. Packing group	-	-	-
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

Land and inland navigation transport ADR/RID
Hazard label(s) 2.1
tunnel restriction code D
Classification code 5F
transport in "limited quantities" according to 3.4 ADR is possible

Marine transport IMDG
MARINE POLLUTANT
Transport as limited quantities according to 3.4 IMDG Code is possible.

! SECTION 15: Regulatory information

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

VOC standard

VOC content	87,1 %
VOC value	622,8 g/L

15.2. Chemical Safety Assessment

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

! SECTION 16: Other information

! **Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.
For industrial use only.

Further information

Each user is responsible for the implementation of the national special regulations.
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 9.0

EUH066	Repeated exposure may cause skin dryness or cracking.
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312,	-?-
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H335,	-?-
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H373	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.