Zinc Spray

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form:	Mixture
Trade name:	Galvana zinc spray, GZ-750
Chemical characterization:	Aerosol

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

Main use category:	Aerosol, For professional use only

1.3 Details of the supplier of the safety data sheet

Manufacturer:
Jefo Ship Supply
De Dissel 12
8332 JH Steenwijk
Nederland
Tel: +31 (0)6 83 70 12 19
E-mail: info@jefoshipsupply.nl
Website: www.jefoshipsupply.nl

1.4. Emergency telephone number

Emergency number: +31 (0)592 40 77 97
This number is serviced during office hours.

2. Hazards identification

2.1 Classification of the substance or mixture

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

Aerosol 1	H222
Aerosol 1	H229
Skin Irrit 2	H315
Eye Irrit 2	H315
STOT SE 3	H336
Aquatic acute 1	H400
Aquatic chronic 1	H410

Full text of H-phrases: see section 16

2.2 Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS02 | GHS07 | GHS09

CLP Signal word: Danger

Hazard statements (CLP)

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking

Precautionary statements (CLP)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use
P261	Avoid breathing spray
P273	Avoid release to the environment.
P280	Wear protective gloves and eye/face protection.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other hazards

No additional information available.

3. Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture:

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dimethylether	CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37	25-50	Flam. Gas 1, H220; Press. Gas C, H280
Zinc powder	CAS: 7440-66-6 EINECS: 231-175-3 Reg.nr.: 01-2119467174-37	25-50	Aquatic Acute 1, H400; Aquatic Chronic 1, H410
Acetone	CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49	10-25	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
Xylene	CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	2,5-10	Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin

			Irrit. 2, H315
Hydrocarbons, C9, aromatics	EC-nummer: 918-668-5 Reg.nr.: 01-2119455851-35	2,5-10	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336
Zinc oxide	CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32	1-2,5	Aquatic Acute 1, H400; Aquatic Chronic 1, H410
2-propanol	CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	1-2,5	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336

Full text of H-phrases: see section 16.

4. First aid measures

4.1. Description of first aid measures

First-aid measures general: In all cases of doubt, or when symptoms persist, seek medical attention. After adequate first aid, no further treatment is required unless symptoms reappear.

After inhalation: Take victim to fresh air, in a quiet place and if necessary take medical advice. If unconscious, place in the recovery position and seek medical advice.

After skin contact: Wash off immediately with soap and plenty of water removing at the same time all contaminated clothes. Wash clothing before re-using. Do not remove clothing if it sticks to the skin.

After eye contact: Rinse immediately with plenty of water, also under the eyelids. First-aid measures after ingestion: Rinse mouth out with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical advice (show the label where possible).

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

After inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

After skin contact: May stain the skin. May cause slight irritation to the skin.

After eye contact: May stain the eyes. May cause eye irritation.

After ingestion: May cause slight irritation.

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

No additional information available.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard: No information available on this specific product, however by analogy, the product is considered to be: No fire hazard.

Explosion hazard: Product does not present an explosion hazard.

Hazardous decomposition products in case of fire: Release of harmful/irritant gases/vapours.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Cool tanks/drums with water spray/remove them into safety.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Prevent fire-fighting water from entering environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Avoid contact with skin, eyes and clothing. Avoid breathing dust, mist or spray. Do not eat, drink or smoke when using this product.

6.1.1. For non-emergency personnel

Protective equipment: Wear recommended personal protective equipment. Refer to chapter 8.

Emergency procedures: Provide adequate ventilation. Wear suitable respiratory equipment in case of insufficient ventilation. Keep unprotected persons from entering.

6.1.2 For emergency responders

Protective equipment: Wear recommended personal protective equipment. Refer to chapter 8.

Emergency procedures: Provide adequate ventilation. Wear suitable respiratory equipment in case of insufficient ventilation. Keep unprotected persons from entering.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it. Wash away remainder with plenty of water.

6.4. Reference to other sections

See section(s): 8, 13.

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Keep away from sources of ignition - No smoking. Avoid all unnecessary exposure.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Do not drink, eat or smoke in the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep away from heat. Protect from freezing. Keep out of the reach of children.

Prohibitions on mixed storage: Keep away from food, drink and animal feeding stuffs.

Storage area: Store in dry, cool, well-ventilated area. Keep container tightly closed.

Packaging materials: Store in original container.

7.3. Specific end use(s)

No additional information available.

8. Exposure controls/personal protection

8.1. Control parameters

115-10-6 dimethylether	
WGW	*STEL: 1500 mg/m³, 782 ppm* *TWA: 950 mg/m³, 495 ppm*
67-64-1 acetone	
WGW	*STEL: 2420 mg/m³, 1000 ppm* *TWA: 1210 mg/m³, 500 ppm*
1330-20-7 xylene (mix)	

MAC	*STEL: 442 mg/m³, 100 ppm* *TWA: 221 mg/m³, 50 ppm*

67-63-0 2-propanol	
BGW	*TWA: 650 mg/m³, 250 ppm*
*· **DNEL's***	

7440-66-6 Zinc powder		
Oral	*DNEL Long term-systemic*	*50 mg/kg bw/day (Worker)*
Dermal	*DNEL Long term-systemic*	*5000 mg/kg bw/day (Consumer)* *5000 mg/kg bw/day (Worker)*
Inhalation	*DNEL Long term-systemic*	*2.5 mg/m3 (Consumer)* *5 mg/m3 (Worker)*

67-64-1 acetone		
Oral	DNEL Long term-systemic	62 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	62 mg/kg bw/day (Consumer)
		186 mg/kg bw/day (Worker)
Inhalation	DNEL Acute-local	2420 mg/m3 (Worker)
		200 mg/m3 (Consumer)
	DNEL Long term-systemic	1210 mg/m3 (Worker)

Hydrocarbons, C9, aromatics		
Oral	DNEL Long term-systemic	11 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	11 mg/kg bw/day (Consumer)
		25 mg/kg bw/day (Worker)
Inhalation	DNEL Long term-systemic	32 mg/m3 (Consumer)
		100 mg/m3 (Worker)

1314-13-2 zinc oxide		
Oral	DNEL Long term-systemic	0.83 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	87 mg/kg bw/day (Consumer)
		87 mg/kg bw/day (Worker)
Inhalation	DNEL Long term-systemic	2.5 mg/m3 (Consumer)
		5 mg/m3 (Worker)

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67-63-0 2-propanol		
Oral	DNEL Long term-systemic	26 mg/kg bw/day (Consumer)
Dermal	DNEL Long term-systemic	319 mg/kg bw/day (Consumer)
		888 mg/kg bw/day (Worker)
Inhalation	DNEL Long term-systemic	89 mg/m3 (Consumer)
		500 mg/m3 (Worker)

· **PNEC's**

7440-66-6 Zinc powder	
PNEC Freshwater	20.6 ug/l (Undefind)
PNEC Freshwater sediment	118 mg/kg (Undefind)
PNEC Marine water	6.1 ug/l (Undefind)
PNEC Marine water sediment	56.5 mg/kg (Undefind)
PNEC Sewage Treatment Plant	52 ug/l (Undefind)
PNEC Soil	56.6 mg/kg (Undefind)

67-64-1 acetone	
PNEC Freshwater sediment	30.4 mg/kg (Undefind)
PNEC Marine water	1.06 mg/l (Undefind)
PNEC Marine water sediment	3.04 (Undefind)
PNEC Soil	29.5 mg/kg (Undefind)

1314-13-2 zinc oxide	
PNEC Freshwater	20.6 ug/l (Undefind)
PNEC Freshwater sediment	117 mg/kg (Undefind)
PNEC Marine water	6.1 ug/l (Undefind)
PNEC Marine water sediment	56.5 mg/kg (Undefind)
PNEC Sewage Treatment Plant	52 ug/l (Undefind)
PNEC Soil	35.6 mg/kg (Undefind)

· **Additional data:**
100-41-4 ethylbenzene
BGW STEL: 430 mg/m³, 100 ppm TAW: 215 mg/m³, 50 ppm H
108-88-3 toluene
BGW STEL: 150 mg/m³, 40 ppm WGW TAW: 384 mg/m³, 100 ppm

8.2. Exposure controls

Appropriate engineering controls:	Ventilate area. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment:	Gloves. Protective clothing. Safety glasses. High gas/vapour concentration: gas mask.
Hand protection:	Chemical resistant gloves (according to European standard NF EN 374 or equivalent), e.g. PVC gloves - Nitrile-rubber protective gloves. Since the product consists of several substances, it is not possible to estimate the durability of the glove material beforehand and it therefore needs to be tested before use.
Eye protection:	Wear tight fitting safety glasses or face shield.
Skin and body protection:	Wear suitable protective clothing.
Respiratory protection:	No respiratory protection needed under normal use conditions. High gas/vapour concentration: gas mask.
Environmental exposure controls:	Avoid release to the environment.
Other information:	Keep away from food, drink and animal feeding stuffs.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Aerosol, active substance: liquid
Appearence	Liquid
Colour	According product information
Odour	Characteristic.

Odour threshold	No data available
pH	No data available
Relative evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	-24°C
Flash point	Substance: -42°C
Auto-Ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	Propane/butane mixture: 300-800kPa (20°C)
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	Substance: 1,06/cm^3 (20°C) Propane/butane mixture: 0,54 g/cm^3 (liquid at 15°C)
Solubility	Water: Insoluble
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	Product does not present an explosion hazard.
Oxidising properties	No data available
Explosive limits	Propane/butane mixture, laagste: 1,5 vol.% Propane/butane mixture, hoogste: 9,5 vol.%

9.2. *Other information*
No additional information available.

10. Stability and reactivity

10.1. *Reactivity*
No additional information available.

10.2. *Chemical stability*
Stable under use and storage conditions as recommended in section 7.

10.3. *Possibility of hazardous reactions*
No dangerous reactions known.

10.4. *Conditions to avoid*
Keep away from open flames, hot surfaces and sources of ignition.

10.5. *Incompatible materials*
Strong acids. Oxidizing agent.

10.6. *Hazardous decomposition products*

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, fumes, nitrogen oxides (NOx).

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

Classification LD/LC50-values:		
7440-66-6 zinc powder		
Oraal	LD50	>2000 mg/kg (rat)
Inhalatief	LC50/4h	>5.4 mg/l (rat)
67-64-1 acetone		
Oraal	LD50	5800 mg/kg (rat)
Dermaal	LD50	7800 mg/kg (rabbit)
Inhalatief	LC50/4h	>20 mg/l (rat)
1330-20-7 xylene (mix)		
Oraal	LD50	4300 mg/kg (rat)
Dermaal	LD50	2000 mg/kg (rabbit)
Hydrocarbons, C9, aromatics		
Oraal	LD50	3295 mg/kg (rat)
Dermaal	LD50	>3160 mg/kg (rat)
1314-13-2 zinc oxide		
Oraal	LD50	>5000 mg/kg (rat)
Dermaal	LD50	>2000 mg/kg (rat)
Inhalatief	LC50	>5700 (4 hours) mg/L (rat)
	LC50/4h	>5700 mg/l (rat)
67-63-0 2-propanol		
Oraal	LD50	5840 mg/kg (rat)
Dermaal	LD50	13900 mg/kg (rabbit)
Inhalatief	LC50/6h	25000 mg/m3 (rat)

Skin corrosion/irritation:	May cause irritation
Serious eye damage/irritation:	May cause eye irritation
Respiratory or skin sensitisation:	Based on available data. Not classified.
Germ cell mutagenicity:	Based on available data. Not classified.
Carcinogenicity:	Based on available data. Not classified.
Reproductive toxicity:	Based on available data. Not classified.
Specific target organ toxicity (single exposure):	Based on available data. Not classified.

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Specific target organ toxicity (repeated exposure):	Based on available data. Not classified.
Aspiration hazard:	Based on available data. Not classified.

12. Ecological information

12.1. Toxicity

Ecology - general: Do not allow into drains or water courses.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

13. Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste):	Disposal must be done according to official regulations.
Sewage disposal recommendations:	Do not discharge into drains.
Waste disposal recommendations:	If recycling is not possible, eliminate in accordance with local valid waste disposal regulations.

14. Transport information

14.1	**UN number** • ADR, ADN, IMDG, IATA	• UN1950
14.2	**UN proper shipping name** • ADR, ADN • IMDG	• UN1950 AEROSOLS, MARINE POLLUTANT

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	• IATA	• AEROSOLS (zinc powder -zinc dust (stabilized), Hydrocarbons,C9,aromatics), MARINE POLLUTANT • AEROSOLS, flammable
14.3	**Transport hazard class(es)** • ADR • Class • Label	 • 2 5F Gasses • 2.1
	• ADN • ADN/R class:	 • 2 5F
	• IMDG • Class • Label	 • 2.1 • 2.1
	• IATA • Class • Label	 • 2.1 • 2.1
14.4	**Packaging group:** • ADR, IMDG, IATA	 • Not applicable
14.5	**Enviromental hazardous:** • Marine pollutant: • Special Labeling (ADR):	• Aerosols (zinc powder -zinc dust (stabilized), Hydrocarbons,C9,aromatics) • Yes • Symbool (fish hand three)
	Transport data	
14.6	**Special precautions for user** • Kemler no: • EMS-no:	Warning: Gasses • - • F-D,S-U
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	Not applicable.
	• ADR • LQ • EQ • Tunnel restriction Code	 • 1L • Code: EO • D
	• IMDG • Limited quantities (LQ) • Excepted quantities (EQ) Not permitted as Excepted Quantity	 • 1L • Code: EO
	• VN "Model Regulation":	• UN1950, AEROSOLS, MARINE POLLUTANT, 2.1

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15. Regulatory information

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

EU-Regulations
Contains no substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

National regulations
Germany

Water hazard class (WGK):	2 - hazard to waters
WGK remark:	(estimated value)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

16. Other information

Indication of changes:
Identification of the substance/mixture and of the company/undertaking. Hazards identification. Composition/information on ingredients. First aid measures. Firefighting measures. Accidental release measures. Handling and storage. Exposure controls/personal protection. Physical and chemical properties. Stability and reactivity. Toxicological information. Ecological information. Disposal considerations. Transport information. Regulatory information. Other information

Data sources:	Echa.europa.eu Manufacturer/supplier Richtsnoer voor etikettering en verpakking in overeenstemming met Verordening (EG) nr. 1272/2008 Regulation (EC) no. 1272/2008

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure: may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause resipatory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic in aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.