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

- Product identifier Aerosol zinc paint
- Trade name: KEEN ZINCACRYL ZINC SATIN
- Product Code given by the Customer: KZ-35002
- Relevant identified uses of the substance or mixture and uses advised :

Aerosol zinc paint for "do it yourself" and professional use

- Sector of Use

SU 21 Consumer uses: Families = general population = consumers

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

- Product category PC9a Coatings and paints, thinners, paint removers
- Process category PROC11 Non industrial spraying
- Environmental release category

ERC8a Wide dispersive indoor use of processing aids in open systems

ERC8d Wide dispersive outdoor use of processing aids in open systems

- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

ITAL G.E.T.E. srl Strada per Caselle, 16 - 20081 Morimondo - Milano Tel. 02-9407374 - Fax 02-9407371 - sito Web: www.italgete.it

- E-mail of the M.S.D.S. responsible person: info@italgete.it
- Emergency telephone number:

Società: Tel. +39 02 9407374 disponibile lunedì-venerdì h 8.00 -17.00

Centri Antiveleni

Milano 02 66101029 (CAV Ospedale Niguarda Ca' Granda -Milano)

Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia)

Bergamo 800 883300 (CAV Ospedali Riuniti - Bergamo)

Firenze 055 7947819 (CAV Ospedale Careggi - Firenze

Roma 06 3054343 (CAV Policlinico Gemelli - Roma)

Roma 06 49978000 (CAV Policlinico Umberto I - Roma)

Napoli 081 7472870 (CAV Ospedale Cardarelli - Napoli)

2 Hazards identification

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



GHS02 flame

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



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H336 May cause drowsiness or dizziness.

- Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms







GHS02

GHS07

GHS09

- Signal word Danger
- Hazard-determining components of labelling:

n-butyl acetate

acetone

ethyl acetate

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numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques

- Hazard statements

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

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

- Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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.

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

P271 Use only outdoors or in a well-ventilated area.

P260 Do not breathe mist/vapours/spray.

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

easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

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

P312 Call a POISON CENTER/doctor if you feel unwell.

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

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

- Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

- Other hazards :

When the aerosol containers are under pressure and heated to temperatures exceeding 50 $^{\circ}$ C, they will deform themselves and may pose a risk of serious body injuries. The vapours are heavier than air and may form flammable and explosive mixtures with air, even at temperatures below 0 $^{\circ}$ C. High exposure, in a not well-ventilated areas, will provoke breathing difficulties, narcosis and unconsciousness

- Results of PBT and vPvB assessment

Accordance to Annex XIII of Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Restriction of chemical substances (see section 3 and 2): does not meet the criteria for classification as PBT and vPvB therefore - not applicable. Use according to good working pratices, avoiding to disperse the product into the environment.

3 Composition/information on ingredients

- Chemical characterization: Mixtures

- Description:

Substances hazardous to health or the environment, contained in concentrations equal to or in excess of exemption of EC directives or according to the criteria of REACH, or with a Community limit exposure in the workplace.

Aerosol can, under pressure with a mixture of solvents, resins, pigments, additives and propellant.

- Components :			
CAS: 68476-40-4 EINECS: 270-681-9 Reg.nr.: 01-2119486557-22-0000	hydrocarbons, C3-C4 (propane, butane, isobutane) Flam. Gas 1, H220; Press. Gas, H280	>30-<40%	
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29-0000	n-butyl acetate Flam. Liq. 3, H226; STOT SE 3, H336	>10-<20%	
CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49-0000 01-2119498062-37-0000	acetone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	>10-<20%	
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46-0000	ethyl acetate Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	>5-<10%	
CAS: 7440-66-6 EINECS: 231-175-3 Reg.nr.: 01-2119467174-37-0000	zinc powder - zinc dust Aquatic Acute 1, H400; Aquatic Chronic 1, H410	>5-<10%	
	numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336	>1-<2.5%	

- **SVHC**: No one SVHC present in the mixture.

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- Additional information Hydrocarbons C3-4 Nota K 1,3 Butadiene <0,1%

4 First aid measures

- Description of first aid measures

- General information :

In all cases of doubt, or when symptoms of discomfort persist, seek medical attention. Never give beverages, if the person is unconscious.

- After inhalation :

Immediately transport the person to an uncontaminated area. If breathing is weak or stopped apply artificial respiration and seek medical advice immediately. If the person is unconscious, take the body on the late with extension of the head, so that the eventual vomiting goes out.

- After skin contact :

Remove contaminated clothes immediately. Wash off immediately with copious quantities of water for at least 10 minutes. Do not use solvents. If irritation persists, consult a doctor

- After eye contact :

Wash the eyes with copious amounts of water for 10 minutes, keeping eyelids opened. Eventually remove contact-lens. Protect eyes with sterile gauze. Do not use drops or ointments of any kind before visiting the specialist doctor.

- After swallowing:

An accidental ingestion of aerosol product is unlikely to happen. Seek medical advice immediately. Cause vomiting only if the doctor indicates to do so.

- Information for doctor

- Most important symptoms and effects, both acute and delayed :

The lack of oxygen due to exposure to high concentrations may cause asphyxiation.

- Danger: Danger of impaired breathing.

5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: Dry powder, carbon dioxide o chemical foams.
- Unsuitable extinguishing agents:

Direct jets of water. The fine spray of water is used to cool aerosol containers exposed to fire or heat in order to prevent bursts and explosions.

- Special hazards arising from the substance or mixture :

Can be released in case of fire

Carbon monoxide (CO)

The heat causes an increase in pressure within aerosol containers, which will deform, burst and can be projected at a considerable distance, with the risk of spread of the fire. Exposure to combustion gases can lead to serious health risks. Under certain fire conditions, traces of other toxic gases cannot be excluded.

Avoid inhalation of fumes evolved in a fire,use self-contained breathing apparatus and protective clothing,keep at a safe distance.

- Advice for firefighters :
- **Protective equipment:** Wear self-contained breathing apparatus.
- Additional information :

Before approaching the fire, wear a total fire equipment, completed with a helmet visor with a protection for the neck.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures :

If the aerosol containers undergo damage that cause leaking, immediately avoid any possible point of inflammation. Do not use tools or machines that can produce sparks. Do not breathe vapours and aerosols. Provide adequate ventilation and immediately isolate the damaged aerosol containers.

- Environmental precautions:

Collect the liquid phase of the product with absorbent inert material, preventing dumping into sewerage.

Ventilate the contaminated room till the gas are completely dissolved.

- Methods and material for containment and cleaning up: Absorb liquid components with liquid-binding material.

- 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 information on disposal.

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7 Handling and storage

- Handling:

Handle only in well-ventilated areas. Do not use in the presence of flames or other source of possible sparkles. Do not turn on electrical appliances until the vapours are completely dispersed, see also section 8 Avoid contact with eyes.

Follow the normal hygiene rules.

- Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray on flames or red-hot objects.

- Conditions for safe storage, including any incompatibilities

Keep the containers in the original boxes, completely avoiding the possibility of falls or collisions. Do not store in underground rooms, propellant and solvents have a significantly higher density in air. Protect from the sun's rays. Store in cool and dry place, away from sources of heat. Keep away from any source of combustion - Do not smoke. Keep away from oxidizing agents, strongly acidic or alkaline products. Store in places intended for flammable products, with appropriate ventilation and far from electrical appliances thus avoiding the accumulation of electrostatic charges. Observe the provisions prescribed by the Fire Department, according to the quantities stored.

- Storage: Store the packaging on solid structures.
- Specific end use(s):

The product is of general use for paint touch-up or limited areas. The safety advice to prevent P271 is to use only outdoors or in a well ventilated area.

8 Exposure controls/personal protection

- Control parameters

Values threshold limits exposure of ingredients ACGIH TLV - TWA (Time Weighted Average) for 8 h and TLV STEL (Short-Term Exposure Limit) for 15 min.

(311011-161	(Short-Term Exposure Limit) for 13 min.		
- Componer	nts with limit v	alues that require monitoring at the workplace:	
68476-40-	68476-40-4 hydrocarbons, C3-C4 (propane, butane, isobutane)		
WEL Lon	g-term value: 1	000 ppm	
123-86-4 1	1-butyl acetate		
WEL Sho	WEL Short-term value: 966 mg/m³, 200 ppm		
Lon	g-term value: 7	24 mg/m³, 150 ppm	
67-64-1 ac	etone		
		620 mg/m³, 1500 ppm	
	<u>- </u>	210 mg/m³, 500 ppm	
	ethyl acetate		
	rt-term value: 4		
Lon	Long-term value: 200 ppm		
- Biological	- Biological limit valu - DNEL		
68476-40-	68476-40-4 hydrocarbons, C3-C4 (propane, butane, isobutane)		
Inhalative	Inhalative DNEL(GLOB) 16000 mg/m³ (rats) (OECD Guideline 422 EPA OPPTS 870.3650)		
		Huntingdon Life Sciences (HLS) (2010a)	
	123-86-4 n-butyl acetate		
Inhalative	DNEL (EC)	480 mg/m³ (Long term - Inhalation - Workers)	
		102 mg/m³ (long-term population)	
	DNEL/24h	960 mg/m³ (Short term - Inhalation - Workers)	
67-64-1 ac	67-64-1 acetone		
Dermal	DNEL (EC)	62 mg/kg (Long term - Dermal - Population)	
	DNEL/24h	186 mg/kg (Long term - Dermal - Workers)	
Inhalative	DNEL (EC)	1210 mg/m³ (Long term - Inhalation - Workers)	
		200 mg/m³ (long-term population)	
			(Contd. on page 5

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			(Contd. of page 4)
	DNEL/24h 2400 mg/m³ (Short term - Inhalation - Workers)		
141-78-6	ethyl ac	etate	
Oral	DNEL	(EC)	4.5 mg/kg (Long term - Oral - Population)
Dermal	DNEL	(EC)	63 mg/kg (Long term - Dermal - Workers)
			37 mg/kg (Long term - Dermal - Population)
Inhalative	DNEL	(EC)	734 mg/m³ (Long term - Inhalation - Workers)
			367 mg/m³ (long-term population)
	DNEL	/24h	1468 mg/m³ (Short term - Inhalation - Workers)
numéro C	E 919-	857-5 - h	hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques
Oral	DNEL	(EC)	125 mg/kg (Long term - Oral - Population)
Dermal	DNEL	(EC)	208 mg/kg (Long term - Dermal - Workers)
			125 mg/kg (Long term - Dermal - Population)
Inhalative	DNEL	(EC)	871 mg/m³ (Long term - Inhalation - Workers)
			903 mg/m³ (long-term population)
- Biological	l limit v	alue - P	NEC
67-64-1 ad	cetone		
PNEC ST	P (EC)	100 mg	/L (purification plant)
PNEC (EC	C)	10.6 mg	g/L (fresh-water)
			g/L (sea-water)
		_	L (émissions occasionnelles)
30.4 mg/kg (sediment (freshwater))			
	3.04 mg/kg (sediment (sea water))		
	33.3 mg/kg (soil)		
141-78-6	•		
PNEC (EC	NEC (EC) 0.2 mg/m³ (orally)		
	0.26 mg/L (fresh-water)		
	0.026 mg/L (sea-water)		
1.65 mg/L (occasional emission)			
650 mg/L (purification plant)		/L (purification plant)	
1.25 mg/kg (sediment (freshwater))		g/kg (sediment (freshwater))	
0.125 mg/kg (sediment (sea water))			
	0.24 mg/kg (soil)		
- Ingredients with biological limit values:			
67-64-1 acetone			
IBE 50 m	_		
Medium: urine			
_	Sampling time: ft Parameter: acetone		
1 manicol. actoric			

- Additional information:

The particle diameter of the preparation are less than 100 microns; a part of these, indicatively 1% by weight, is less than 10 microns. The mass aerodynamic diameter is 28 microns. These values are, however, vary according to temperature, time of delivery and use patterns.

- Exposure controls

Avoid inhaling gas, vapours and aerosol particles, using a properly ventilated environment, in order to maintain the concentration below the exposure limits.

If the measures of environmental hygiene are not enough to fall below these limits, appropriate respiratory protection must be adopted

- General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- Breathing equipment:

Not necessary if room is well-ventilated.

If exposure limits are exceeded, use a full face mask with filter gases, organic vapours and dust, type EN141 & EN143 & EN371

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- Protection of hands:

In case of prolonged usage, use protective gloves resistant to solvents, such as neoprene or PVA, type EN374

- Eye protection:

Wear security glasses whenever there is a possibility of contact with the product.



Gauze goggles EN 166 CE.

Glasses of hermetic protection, resistance to solvents, with side protection, type EN166.

- Body protection:

In case of correct use not necessary.

Antistatic shoes and clothing.

9 Physical and chemical properties

- Information on basic physical and chemical properties

- General Information

- Appearance

Form: Can under pressure with product and liquefied gas

Colour: According to product specification

- Odour: Solvent-like - Odour threshold: Not determined.

- Important informations on protection of environment

VALUE/RANGE UNIT METHOD and on safety:

- pH-value: Not applicable to the preparation

- Change in condition

Melting point/Melting range: Not determined <0°C Boiling point/Boiling range: < 0 °C - Flash point:

- Chemical heat of combustion: Supérieure à 2 kJ/g - Inflammability (Directive 2008/47/EEC - 08/04/2008): Extremely flammable - Decomposition temperature: Not determined. Superiore a 300 °C - Self-inflammability: Not determined. - Danger of explosion:

- Critical values for explosion:

Lower: 1.9 Vol % (LEL) 15.0 Vol % (UEL) Upper: 4.5 ± 0.2 bar at 20 °C Pressure in the can: 0,74 + /-0,01Relative density Vapour density Superiore a 2 g/cm³ **Evaporation rate** Not applicable.

- Solubility in / Miscibility with

Water: Non soluble

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:

dvnamic: Not determined.

- Other information Radioactivity: not radioactive.

- Additional information : The product is not explosive; however the heaviest steams

> could create explosive mixture in the passages and in the pipes of aeration. Then the product could taxe fire in presence of free flames, incandescent masses, electric motors, sparks, accumulation of static electricity or different ignition sources

even if located far from the point of use.

10 Stability and reactivity

- Reactivity: No dangerous reaction if properly used and stored.
- Chemical stability: stable if not heated to temperatures exceeding 50 °C.
- Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions: No dangerous reaction if properly used and stored.

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- Conditions to avoid:

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Avoid collisions with pointed objects and avoid falls, which causes perforations or breakage of aerosol containers and consequently spillage of gas and flammable solvents. Avoid exposure to high temperatures or direct sunlight; the heat at temperatures higher than 50 °C, which can cause the outbreak and the projection of the container, even at considerable distances, with the risk of spreading fire.

- Incompatible materials:

Keep away from oxidizing agents, strong acids and strong alkalis, in order to prevent corrosion of the steel containers

- Hazardous decomposition products:

Carbon monoxide and carbon dioxide

The product is flammable, burning can give rise to the formation of dangerous decomposition products. see point 5

11 Toxicological information

- Information on toxicological effects
- Acute toxicity

- LD/LC50	values that are	e relevant for classification :
68476-40-	4 hydrocarbon	s, C3-C4 (propane, butane, isobutane)
Inhalative	LC50/1/4h	14442738 mg/m³ (rats) Clark DG and Tiston (1982)
		1443 mg/L (rats) Clark DG and Tiston DJ (1982)
		800000 ppm (rats) Clark DG and Tiston (1982)
	NOAEC/390h	10000 ppm (rats) (OECD Guideline 413 EPA OPPTS 870.3465 (90)) Huntingdon Life Sciences (HLS) (2009b)
123-86-4 r	n-butyl acetate	
Oral	LD50	>6400 mg/kg (rats)
Dermal	LD50	>5000 mg/kg (rabbits)
Inhalative	LC50/4h	21 mg/L (rats)
67-64-1 acetone		
Oral	LD50	5800 mg/kg (rats)
Dermal	LD50	>20000 mg/kg (rabbits)
Inhalative	LC50/4h	>50 mg/L (rats)
141-78-6 e	thyl acetate	
Oral	LD50	>5000 mg/kg bw (rats)
Dermal	LD50	>18000 mg/kg (rabbits)
		>20000 mg/kg-bw (rabbits)
Inhalative	LC50/4h	44 mg/L (rats)
	LCL□/6h	>6000 ppm (rats)
7440-66-6 zinc powder - zinc dust		
Oral	LD50	=>2000 mg/kg (rats)
Inhalative	LC50/4h	=>5.4 mg/L (rats)
numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques		
Oral	LD50	> 5000 mg/kg (male rat)
Dermal	LD50	> 5000 mg/kg-bw (rabbits)
Inhalative	LC50/4h	21 mg/L (rats)
	mitant affact.	

- Primary irritant effect:
- on the skin:

Prolonged or repeated contacts with the skin causes the removal of the natural fats and can cause the onset of allergic no contact dermatitis.

- on the eye:

Direct contact causes serious irritation. Symptoms may include: tearing, redness, swelling and pain. Irritant effect.

- Sensitization: No sensitizing effect is known.

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- Inhalation:

Inhalation of high concentrations of organic solvents can cause irritation to the mucous membranes and causes harmful effects to the liver, kidney and nervous system. Symptoms can include headache, dizziness, nausea, muscle weakness, fainting and, in extreme cases, loss of consciousness

Extended exposure to vapours and fogs can lead to irritations of the breathing apparatus.

- Swallowing:

The accidental ingestion of aerosol is an unlikely event. Ingestion gives irritation to the throat, the digestive system, nausea, vomiting and diarrhoea. The effects may include those described for inhalation.

No risk under normal conditions of use.

- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Irritant

12 Ecological information

Use according to good working pratices, avoiding to disperse the product into the environment.

- Presence of hazardous substances to the environment :

The amount of hazardous substance for the environment present in the mixture and its relative classification is shown in section 3.

- Toxicity

- Aquatic toxicity: 68476-40- ★ brocarbons, C3-C4 (propane, butane, isobutane) C50	A quotio tovi	oity.	
IC50			
Huntingdon Life Sciences (HLS) (2010a) LC50/48h			
LC50/48h	1C50		
USEPA OPP 2008 24.11 mg/L (fish) QSAR EPA 2008	I C50/401		
LC50/96h 24.11 mg/L (fish) QSAR EPA 2008 123-86-4 n-butyl acetate EC50/48h	LC30/46II		
123-86-4 n-butyl acetate	LC50/96h		
123-86-4 n-butyl acetate	LC30/70II		
EC50/48h	123-86-4 n-b		
EC50/96h 302 mg/L (Algae) LC50/336h 4042 mg/L (fish) LC50/48h 1680 mg/L (Daphnia) 141-78-6 ethyl acetate EC50/48h 260 mg/L (Daphnia) LC50/48h 5600 mg/L (Daphnia) LC50/48h 5600 mg/L (Desmodesmus subspicatus)			
EC50/96h 302 mg/L (Algae) LC50/336h 4042 mg/L (fish) LC50/48h 1680 mg/L (Daphnia) 141-78-6 ethyl acetate EC50/48h 260 mg/L (Daphnia) LC50/48h 5600 mg/L (Desmodesmus subspicatus)	LC50/96h		
LC50/336h 4042 mg/L (fish) LC50/48h 1680 mg/L (Daphnia) 141-78-6 ethyl acetate EC50/48h 260 mg/L (Daphnia) LC50/48h 5600 mg/L (Desmodesmus subspicatus)	67-64-1 acetone		
LC50/48h 1680 mg/L (Daphnia) 141-78-6 ethyl acetate EC50/48h 260 mg/L (Daphnia) LC50/48h 5600 mg/L (Desmodesmus subspicatus) >5000 mg/L (Algae) LC50/96h 230 mg/L (Pimephales promelas) NOEC/168h 2.4 mg/L (Daphnia) NOEC/72h >1000 mg/L (Scenedesmus substicatus) numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)	EC50/96h	302 mg/L (Algae)	
141-78-6 ethyl acetate EC50/48h	LC50/336h	4042 mg/L (fish)	
EC50/48h	LC50/48h	1680 mg/L (Daphnia)	
LC50/48h 5600 mg/L (Desmodesmus subspicatus) >5000 mg/L (Algae) LC50/96h 230 mg/L (Pimephales promelas) NOEC/168h 2.4 mg/L (Daphnia) NOEC/72h >100 mg/L (Scenedesmus substicatus) numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)	141-78-6 eth	yl acetate	
>5000 mg/L (Algae) LC50/96h 230 mg/L (Pimephales promelas) NOEC/168h 2.4 mg/L (Daphnia) NOEC/72h >100 mg/L (Scenedesmus substicatus) numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)	EC50/48h	260 mg/L (Daphnia)	
LC50/96h 230 mg/L (Pimephales promelas) NOEC/168h 2.4 mg/L (Daphnia) NOEC/72h >100 mg/L (Scenedesmus substicatus) numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)	LC50/48h	5600 mg/L (Desmodesmus subspicatus)	
NOEC/168h NOEC/72h 2.4 mg/L (Daphnia) NOEC/72h >100 mg/L (Scenedesmus substicatus) numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)		>5000 mg/L (Algae)	
NOEC/72h >100 mg/L (Scenedesmus substicatus) numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)	LC50/96h	230 mg/L (Pimephales promelas)	
numéro CE 919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques EL50	NOEC/168h	2.4 mg/L (Daphnia)	
EL50 > 1000 mg/L (Daphnia Magna) > 1000 mg/L (Pseudokirchneriella subcapitata)	NOEC/72h	>100 mg/L (Scenedesmus substicatus)	
> 1000 mg/L (Pseudokirchneriella subcapitata)	numéro CE	919-857-5 - hydrocarbures en C9-C11, n-alcanes, isoalcanes, cycliques, < 2% aromatiques	
	EL50	> 1000 mg/L (Daphnia Magna)	
LL50/96h > 1000 mg/L (Oncortynchus mykiss)		> 1000 mg/L (Pseudokirchneriella subcapitata)	
	LL50/96h	> 1000 mg/L (Oncortynchus mykiss)	

- Behaviour in environmental systems:

- Bioaccumulative potential:

The propellant and the solvents have low split coefficients n-octanol/water and are not definable as bio accumulative. Not applicable

- Mobility in soil: The propellant and the solvents are dispersed quickly in the air, without polluting of the soil.
- Ecotoxical effects: Not applicable.
- Remark: Toxic for fish
- Additional ecological information: The amount of volatile organic compounds VOC is 608 g/l.
- According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC: Zinc powder (CAS 7440-66-6)
- General notes:

Do not allow product to reach ground water, water bodies or sewage system.

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Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Restriction of chemical substances (see section 3 and 2): does not meet the criteria for classification as PBT and vPvB therefore - not applicable. Use according to good working practices, avoiding to disperse the product into the environment.

- Other adverse effects: The contained solvents and propellant have a low level of photochemical ozone creation potential,

13 Disposal considerations

- Waste treatment methods :

Handle eventual residues or working defective pieces as safety rules, already described at the points 7 and 8. The storage of the containers with refuses inside shal be done in a proper and fixed area, well ventilated and away from heating sources and/or from uncompatible materials (Chapter 10), protected by another additional area to contain, that must be incombustible, waterproof, unassailable by the refuses and phisically divided from the raw materials warehouse.

- Waste disposal key number:

EWC waste code refering to the empty spray cans: 15 01 10*

Code packaging Ferrous packaging code CER 15.01.04

Code packaging Plastic caps: CER 15.01.02

- EWC European waste catalogue code reported to the mixture or substance :

According to the European Waste Catalogue, Waste Codes are not specific to the article, but application specific. Waste codes should be assigned according to the application that was made of this article.

- Features danger refusal :

HP3 = Flammable.

HP4 = Irritant

- Uncleaned packagings:

- Recommendation:

Disposal must be made according to official regulations.

The individual aerosol tin can be removed through the differentiated collection of the town solid refuses, in accordance with the rules of the interested Municipalities.

UN1950 1950 AEROSOLS AEROSOLS (zinc powder - zinc dust), MARINE POLLUTAN AEROSOLS, flammable
AEROSOLS (zinc powder - zinc dust), MARINE POLLUTAN
AEROSOLS (zinc powder - zinc dust), MARINE POLLUTAN
AEROSOLS, flammable
2 5F Gases.
2.1
2.1
2.1

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- Environmental hazards:	Product contains environmentally hazardous substances: zinc powder - zinc dust	
- Marine pollutant:	Yes	
- Special precautions for user	Warning: Gases.	
- Kemler Number ADR/RID :	-	
- EMS Number:	F-D,S-U	
- Transport in bulk according to Annex II of		
MARPOL73/78 and the IBC Code	Not applicable.	
- Transport/Additional information:	The aerosol products, packed limited quantities LQ2, under Chapter ADR 3.4 paragraphs 3.4.1.2 and 3.4.6. are in exemption ADR/RID and 2012.	
-ADR		
- Limited quantities (LQ)	1L	
- Transport category	2	
- Tunnel restriction code	D	
- UN "Model Regulation":	UN1950, AEROSOLS, 2.1	
- EU Regulation 927/2012 - number of Customs code : 3208 20 90		

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Other regulations, limitations and prohibitive regulations II codice doganale comunitario è 3208 20 90
- Substances of very high concern (SVHC) according to REACH, Article ${\bf 57}$ ${\bf 59}$:

Are not present substances SVHC listed in " CANDIDATE LIST "

- RoHS regulation:

There are no substances: Lead, Mercury, Cadmium, hexavalent Chromim. Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDEs) that are listed in the Legislative Decree of March 4, 2014 No. 27 implementing Directive 2011/65/CE (Rohs)

- Further reference provisions:

Directive 2008/47/EEC aerosols Regulation 1907/2006/EEC (REACH) Regulation 1272/2008/EEC (CLP/GHS)

Regulation 790/2009/EEC

Regulation (UE) N. 453/2010 - 20/05/2010

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

- 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.

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eve irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

- Training hints The training of workers on chemical agents must be conducted in accordance with Directive No. 98/24/EC.

- Recommended restriction of use

The information have been filled out to the best of our knowledge on the basis of the National and European regulations. The consumer has the responsibility of using the product, according to the instructions and of taking all the necessary measures for to comply with the laws and local rules regarding security and hygiene of the work and conservation of the environment. The information given must be considered as a description of the security demanded relative to our product. We decline any responsibility for the consequent damages due to improper usage of the product.

- Abbreviations and acronyms :

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

VOC: Volatile Organic Compounds (USA, EU) (=COV)

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Safety data sheet in accordance with Regulation 830/2015/EU

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PNEC: Predicted No-Effect Concentration (REACH)

STEL: Short Term Exposure Limit TLV: The shold Limit Value TWA: Time Weighted Average

PBT: Persistent, Bioaccumulative and Toxic PNP: Very Persistent very Bioaccumulative
CLP: Classification, Labelling and Packaging
REACH: Registration, Evalutation, Authorization of CHemicals
SVHC: Substance of Very High Concern

PNEC: Predicted No Effect Concentration (Risk Assesment)

ACGIH: American Conference of Governmental Industrial Hygienists.

STEL/C: Short-Term Exposure Limit/Ceiling.

LEL: Lower Explosive Limit

UEL: Upper Explosive Limit BW: Body weight NOAEL: No Observed Adverse Effects Level RoHS: Restriction on the use of Hazardous Substances. RTECS: Registry of Toxic Effects of Chemical Substances. NOAEC: No Observed Adverse Effects Concentratin

CER: Catalogo Europeo Rifiuti.

NOAEL: No Observed Adverse Effects Concentration
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2 (Contd. of page 10)

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