

Carima Srl

Revision nr. 6

Dated 09/01/2023

ZINC SPAY 400ml

Printed on 25/01/2023

Page n. 1/25

Replaced revision:5 (Dated: 31/08/2021)

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code: VZINC400
Product name: LIGHT ZINC 400 ml
UFI: N740-R0F8-Y00K-2S7P

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

Intended use Zinc in aerosol.

Identified Uses	Industrial	Professional	Consumer
Consumer	✓ -	-	✓
Industrial Use	-	✓ -	-
Professional Use	-	-	-

1.3. Details of the supplier of the safety data sheet

Name: Carima Srl
Full address: Via dei Brughi 30/31
District and Country: 20060 Gessate (MI)
Italia
Tel. +39 02 95384225
Fax +39 02 70058164

e-mail address of the competent person
responsible for the Safety Data Sheet

carima@carima.biz

1.4. Emergency telephone number

For urgent inquiries refer to

IT - Centro Antiveleni di Milano - Ospedale Niguarda: Tel. 02 66101029 (Italy)
AT - Vergiftungsinformationszentrale (VIZ): Tel. +43 01 406 4343 (Austria)
BE - Belgisch Antigifcentrum: Tel. 070 245245 (Belgium)
BG - НАЦИОНАЛЕН ЦЕНТЪР ПО ТОКСИКОЛОГИЯ: Tel. +359 2 9154 233 (Bulgaria)
HR - Centar za kontrolu otrovanja: Tel. +385 1 2348342 (Croatia)
CY - Τμήμα Επιθεώρησης Εργασίας (TEE): Tel. 1401 (Cyprus)
CZ - Toxikologické informační středisko (TIS): Tel. +420 224 919 293 / +420 224 915 402 (Czech Republic)
DK - Giftlinjen: Ring 82 12 12 12 (Denmark)
EE - Mürgistusteabekeskus: Tel. 16662 (Estonia)
FI - Myrkytystietokeskus: Tel. 0800 147 111 / 09 471 977 (Finland)
FR - ORFILA (INRS): Tél. +33 (0) 1 45 42 59 59 (France)
DE - Giftnotruf der Charité Universitätsmedizin Berlin: Tel. +49 030 19240 (Germany)
GR - Κέντρο Δηλητηριάσεων: Τηλ. 210 7793777 (Greece)
HU - Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ): Tel. +36 80 20 1199 (Hungary)
IS - Eitrunarmiðstöð: Tel. 543 2222 (Iceland)
IE - National Poisons Information Centre (NPIC): Tel. 01 8092566 / 01 8379964 (Republic of Ireland)
LV - Latvian Poisons Information Centre: Tel. +371 67042473 (Latvia)
LT - Apsinuodijimų Informacijos biuras: Tel. 8-5 236 2052 (Lithuania)
LU - Giftinformationszentrum: Tel. +352 8002 5500 (Luxembourg)
NL - Nationaal Vergiftigingen Informatie Centrum (NVIC): Tel. 030 274 88 88 (Netherlands)

ZINC SPAY 400ml

NO - Giftinformasjonen: Tel. 22 9 13 00 (Norway)
 PL - Pomorskie Centrum Toksykologii: Tel. +58 682 04 04 (Poland)
 PT - Centro de Informação Antivenenos (CIAV): Tel. 800 250 250 (Portugal)
 RO - Biroul RSI Si Informare Toxicologica: Tel. 021 318 36 06 (Romania)
 SK - Národné Toxikologické informačné centrum (NTIC): Tel. 02 5477 4166 (Slovakia)
 SI - Center za klinično toksikologijo in farmakologijo: Tel. 112 (Slovenia)
 ES - Servicio de Información Toxicológica (SIT) España: Tel.+34 91 562 04 20 (Spain)
 SE - Giftinformationscentralen: Tel. 112 (Sweden)
 CH - Schweizerisches Toxikologisches Informationszentrum (STIZ): Tel. +41 145 (Switzerland)
 GB - National Poisons Information Service (NPIS) Tel. 0344 892 0111 (United Kingdom)
 Members of the Public: NHS 111 (England), NHS 24 (Scotland) or NHS Direct (Wales)

SECTION 2. Hazards identification**2.1. Classification of the substance or mixture**

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
Acute toxicity, category 4	H332	Harmful if inhaled.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

ZINC SPAY 400ml

Precautionary statements:

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.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents/container in accordance with local regulations.
P102	Keep out of reach of children.
P211	Do not spray on an open flame or other ignition source.
P271	Use only outdoors or in a well-ventilated area.

Contains:	Hydrocarbons, C6, isoalkanes Isobutyl acetate
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VOC (Directive 2004/42/EC):

Special finishes.

VOC given in g/litre of product in a ready-to-use condition :	550,00
Limit value:	840,00

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage $\geq$ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration $\geq$ 0.1%.

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
Xylene (Mixture of isomers)		
INDEX 601-022-00-9	$23 \leq x < 27$	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C LD50 Dermal: >1700 mg/kg, STA Inhalation mists/powders: 1,5 mg/l
EC 215-535-7		
CAS 1330-20-7		
REACH Reg. 01-2119488216-32-XXXX		
Propane		
INDEX 601-003-00-5	$19 \leq x < 23$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
CAS 74-98-6		
REACH Reg. 01-2119486944-21-0046		
Hydrocarbons, C6, isoalkanes		
INDEX 649-328-00-1	$15 \leq x < 19$	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: P
EC 265-151-9		

ZINC SPAY 400ml

CAS 64742-49-0

REACH Reg. 012119484651-34-XXXX

Petroleum ResinsINDEX - $15 \leq x < 19$ Aquatic Chronic 4 H413

EC 265-116-8

CAS 64742-16-1

ButaneINDEX 601-004-00-0 $9 \leq x < 11$ Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U

EC 203-448-7

CAS 106-97-8

REACH Reg. 01-2119474691-32-XXXX

Aluminium Powder (stabilised)INDEX 013-002-00-1 $1 \leq x < 3$ Flam. Sol. 1 H228, Water-react. 2 H261, Classification note according to Annex VI to the CLP Regulation: T

EC 231-072-3

CAS 7429-90-5

REACH Reg. 01-2119529243-45-XXXX

Isobutyl acetateINDEX 607-026-00-7 $1 \leq x < 3$ Flam. Liq. 2 H225, STOT SE 3 H336, EUH066, Classification note according to Annex VI to the CLP Regulation: C

EC 203-745-1

CAS 110-19-0

REACH Reg. 01-2119488971-22-XXXX

IsobutaneINDEX 601-004-00-0 $1 \leq x < 3$ Flam. Gas 1A H220, Press. Gas H280

EC 200-857-2

CAS 75-28-5

REACH Reg. 01-2119485395-27-XXXX

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromaticsINDEX - $1 \leq x < 3$ Asp. Tox. 1 H304, EUH066

EC 918-481-9

CAS -

REACH Reg. 01-2119457273-39-XXXX

Zinc Powder (stabilised)INDEX 030-001-01-9 $0,5 \leq x < 1$ Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1, Classification note according to Annex VI to the CLP Regulation: T

EC 231-175-3

CAS 7440-66-6

REACH Reg. 01-2119467174-37-XXXX

QuartzINDEX - $0 \leq x < 0,5$ STOT RE 2 H373

EC 238-878-4

CAS 14808-60-7

ZINC SPAY 400ml

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 31,00 %

Hydrocarbons, C6, isoalkanes

Hydrocarbons, C6, isoalkanes, <5% n-hexane: a complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C4 through C11 and boiling in the range of approximately minus 20Å ° C to 190Å ° C (-4Å ° F to 374Å ° F).

SECTION 4. First aid measures**4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures**5.1. Extinguishing media**

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

Aluminium Powder (stabilised)

Dry sand; Special powder against metal combustion. Unsuitable extinguishing media: water, foam ABC powder, carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

ZINC SPAY 400ml**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection**8.1. Control parameters****Regulatory References:**

CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56 Límites de exposición profesional para agentes químicos en España 2021 Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
DEU	Deutschland	
ESP	España	
FRA	France	

Carima Srl				Revision nr. 6
ZINC SPAY 400ml				Dated 09/01/2023
				Printed on 25/01/2023
				Page n. 7/25
				Replaced revision:5 (Dated: 31/08/2021)

GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία``» Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelethe a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről Decreto Legislativo 9 Aprile 2008, n.81 Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov EH40/2005 Workplace exposure limits (Fourth Edition 2020) Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC. ACGIH 2021		
HUN	Magyarország			
ITA	Italia			
PRT	Portugal			
POL	Polska			
SVK	Slovensko			
GBR	United Kingdom			
EU	OEL EU			
	TLV-ACGIH			

Xylene (Mixture of isomers)								
Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
TLV	CZE	200	45,4	400	90,8	SKIN		
AGW	DEU	440	100	880	200	SKIN		
MAK	DEU	440	100	880	200	SKIN		
VLA	ESP	221	50	442	100	SKIN		
VLEP	FRA	221	50	442	100	SKIN		
TLV	GRC	435	100	650	150			
AK	HUN	221		442		SKIN		
VLEP	ITA	221	50	442	100	SKIN		
VLE	PRT	221	50	442	100	SKIN		
NDS/NDSch	POL	100		200		SKIN		
NPEL	SVK	221	50	442	100	SKIN		
WEL	GBR	220	50	441	100	SKIN		
OEL	EU	221	50	442	100	SKIN		
TLV-ACGIH			20					
Predicted no-effect concentration - PNEC								
Normal value in fresh water				327	µg/l			
Normal value in marine water				327	µg/l			
Normal value for fresh water sediment				12,46	mg/kg/d			
Normal value for marine water sediment				12,46	mg/kg/d			
Normal value of STP microorganisms				6,58	mg/l			
Normal value for the terrestrial compartment				2,31	mg/kg/d			
Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers			Effects on workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,6 mg/kg bw/d				
Inhalation				14,8 mg/m3			289 mg/m3	77 mg/m3

Carima Srl	Revision nr. 6
	Dated 09/01/2023
ZINC SPAY 400ml	Printed on 25/01/2023
	Page n. 8/25
	Replaced revision:5 (Dated: 31/08/2021)

Skin	108 mg/kg bw/d	180 mg/kg bw/d
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Propane					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	1800	1000	7200	4000
MAK	DEU	1800	1000	7200	4000
VLA	ESP		1000		
TLV	GRC	1800	1000		
NDS/NDSch	POL	1800			

Hydrocarbons, C6, isoalkanes					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
NDS/NDSch	POL	500		1500	

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1301 mg/kg bw/d				
Inhalation				1137 mg/m3				5306 mg/m3
Skin				1377 mg/kg bw/d				13964 mg/kg bw/d

Butane					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	2400	1000	9600	4000
MAK	DEU	2400	1000	9600	4000
VLA	ESP		1000		
VLEP	FRA	1900	800		
TLV	GRC	2350	1000		
AK	HUN	2350		9400	
NDS/NDSch	POL	1900		3000	
WEL	GBR	1450	600	1810	750
WEL	GBR		4		RESP
TLV-ACGIH					1000

Talc		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	597,97	mg/l
Normal value in marine water	141,26	mg/l
Normal value for fresh water sediment	31,33	mg/kg/d

Carima Srl						Revision nr. 6		
ZINC SPAY 400ml						Dated 09/01/2023		
						Printed on 25/01/2023		
						Page n. 9/25		
						Replaced revision:5 (Dated: 31/08/2021)		
Normal value for marine water sediment			3,13			mg/kg/d		
Normal value for water, intermittent release			597,97			mg/l		
Normal value for the atmosphere			10			mg/m3		
Health - Derived no-effect level - DNEL / DMEL								
		Effects on consumers			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		160 mg/kg bw/d		160 mg/kg bw/d				
Inhalation	1,8 mg/m3	1,08 mg/m3	1,8 mg/m3	1,08 mg/m3	3,6 mg/m3	2,16 mg/m3	3,6 mg/m3	2,16 mg/m3
Skin			2,27 mg/cm2	2,16 mg/kg bw/d			4,54 mg/cm2	43,2 mg/kg bw/d
Aluminium Powder (stabilised)								
Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
MAK	DEU	4				INHAL		
MAK	DEU	1,5				RESP		
VLA	ESP	1				RESP		
VLEP	FRA	5						
TLV	GRC	10						
AK	HUN	1				RESP		
NDS/NDSch	POL	2,5				INHAL		
NPEL	SVK	4				INHAL		
NPEL	SVK	1,5				RESP		
WEL	GBR	10				INHAL		
WEL	GBR	4				RESP		
TLV-ACGIH		1	0,9			RESP	AI	
Predicted no-effect concentration - PNEC								
Normal value in fresh water				VND				
Normal value in marine water				VND				
Normal value for fresh water sediment				VND				
Normal value for marine water sediment				VND				
Normal value for water, intermittent release				VND				
Normal value of STP microorganisms				20		mg/l		
Normal value for the food chain (secondary poisoning)				VND				
Normal value for the terrestrial compartment				VND				
Normal value for the atmosphere				NPI				
Health - Derived no-effect level - DNEL / DMEL								
		Effects on consumers			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral						NPI		3,95 mg/kg bw/d
Inhalation						NPI	3,72 mg/m3	3,72 mg/m3
Isobutyl acetate								
Threshold Limit Value								

Inhalation	NPI	NPI	NPI	2,5 mg/m3	NPI	NPI	500 µg/m3	5 mg/m3
Skin	NPI	NPI	NPI	83 mg/kg bw/d	NPI	NPI	NPI	83 mg/kg bw/d

Quartz Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLA	ESP		0,05	RESP
VLEP	FRA	0,1		RESP
VLEP	ITA	0,1		RESP
VLE	PRT	0,025		RESP
NDS/NDSch	POL	0,1		RESP
NPEL	SVK	0,1		RESP
OEL	EU	0,1		RESP
TLV-ACGIH		0,025		RESP

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

None required.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	aerosol	
Colour	aluminum / light gray	
Odour	characteristic of solvent	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	flammable gas	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	< 0 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	Reason for missing data: substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity	not available	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	0,70 ÷ 0,74 kg/l	Temperature: 20 °C
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	76,50 % - 550,00 g/litre
VOC (volatile carbon)	61,01 % - 439,24 g/litre
Explosive properties	not applicable
Oxidising properties	not applicable

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

Isobutyl acetate

Decomposes under the effect of heat. Attacks various types of plastic materials.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

Xylene (Mixture of isomers)

Stable in normal conditions of use and storage. Reacts violently with: strong oxidants, strong acids, nitric acid, perchlorates. May form explosive mixtures with: air.

Aluminium Powder (stabilised)

Develops hydrogen on contact with: water.

Develops hydrogen on contact with: acids, alkalis, halogens, oxidising agents.

Isobutyl acetate

Risk of explosion on contact with: strong oxidising agents. May react violently with: alkaline hydroxides, potassium tert-butoxide. Forms explosive mixtures with: air.

Zinc Powder (stabilised)

Risk of explosion on contact with: ammonium nitrate, ammonium sulphide, barium peroxide, lead nitride, chlorates, chromium trioxide, sodium hydroxide, oxidising agents, performic acid, acids, tetrachloromethane, water. May react dangerously with: alkaline hydroxides, bromine pentafluoride, calcium chloride, fluorine, hexachloroethane, nitrobenzene, potassium dioxide, carbon disulphide, silver. Reacts with: strong acids, strong alkalis. May develop: hydrogen.

10.4. Conditions to avoid

Avoid overheating.

Isobutyl acetate

Avoid exposure to: sources of heat, naked flames.

Zinc Powder (stabilised)

Avoid exposure to: heat, moisture.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

Isobutyl acetate

Incompatible with: strong oxidants, nitrates, strong acids, strong bases.

Zinc Powder (stabilised)

Incompatible with: water, acids, strong alkalis.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Xylene (Mixture of isomers)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Xylene (Mixture of isomers)

Toxic action on the central nervous system (encephalopathies); irritant action on the skin, conjunctiva, cornea and respiratory system.

Interactive effects

Xylene (Mixture of isomers)

Alcohol intake interferes with the metabolism of the substance, inhibiting it. Consumption of ethanol (0.8 g / kg) before a 4-hour exposure to xylenes vapors (145 and 280 ppm) causes a 50% decrease in the excretion of metilippuric acid, while the blood concentration of xylenes rises about 1.5-2 times. At the same time, there is an increase in the secondary side effects of ethanol. The metabolism of xylenes is enhanced by phenobarbital and 3-methyl- colanthrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with glycine, which results in a decrease in urinary excretion of metilippuric acid. Other industrial products can interfere with the metabolism of xylenes.

ACUTE TOXICITY

ZINC SPAY 400ml

ATE (Inhalation - mists / powders) of the mixture: 4,4 mg/l
ATE (Oral) of the mixture: Not classified (no significant component)
ATE (Dermal) of the mixture: >2000 mg/kg

Xylene (Mixture of isomers)

LD50 (Dermal): > 1700 mg/kg rabbit
LD50 (Oral): > 3000 mg/kg rat
LC50 (Inhalation vapours): 5000 ppm/4h rat
STA (Inhalation mists/powders): 1,5 mg/l
(figure used for calculation of the acute toxicity estimate of the mixture)

Propane

LC50 (Inhalation mists/powders): 800000 ppm 15 min

Hydrocarbons, C6, isoalkanes

LD50 (Dermal): > 2000 mg/kg bw rabbit
LD50 (Oral): > 2000 mg/kg bw rat
LC50 (Inhalation vapours): > 25 mg/l/4h air (rat)

Petroleum Resins

LD50 (Oral): 2000 mg/kg

Butane

LC50 (Inhalation mists/powders): > 1442,738 mg/l/15min rat

Aluminium Powder (stabilised)

LD50 (Oral): > 15000 mg/kg bw rat
LC50 (Inhalation mists/powders): 888 mg/m3/4h rat

Isobutyl acetate

LD50 (Dermal): 17400 mg/kg bw rabbit
LD50 (Oral): 13413 mg/kg bw rat
LC50 (Inhalation vapours): 30 mg/l/6h rat

Isobutane

LC50 (Inhalation mists/powders): > 1442,738 mg/l/15min rat

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

LD50 (Dermal): 2000 mg/kg bw rat
LD50 (Oral): > 5000 mg/kg bw rat
LC50 (Inhalation vapours): > 4 mg/l/4h rat

Zinc Powder (stabilised)

LD50 (Oral): > 2000 mg/kg bw rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Xylene (Mixture of isomers)

Classified in group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).

The US Environmental Protection Agency (EPA) claims that "the data were found to be inadequate for an assessment of carcinogenic potential."

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Excluded because the aerosol does not allow the accumulation of a significant amount of product in the mouth

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

Petroleum Resins

EC50 - for Crustacea 100 mg/l/48h

EC50 - for Algae / Aquatic Plants 100 mg/l/72h

Hydrocarbons, C10-C13, n-alkanes,
isoalkanes, cyclics, <2% aromatics

Chronic NOEC for Algae / Aquatic Plants 1000 mg/l 72 hours

Aluminium Powder (stabilised)

LC50 - for Fish > 78 µg/l/96h

EC50 - for Crustacea 1,5 mg/l/48h

EC50 - for Algae / Aquatic Plants 16,9 µg/l

Chronic NOEC for Fish 25,1 µg/l 7 days

Chronic NOEC for Crustacea 5 µg/l 48 h

Chronic NOEC for Algae / Aquatic Plants 45,7 mg/l 4 days

Zinc Powder (stabilised)

LC50 - for Fish 112 µg/l/96h

EC50 - for Crustacea 155 µg/l/48h

Chronic NOEC for Fish 720 µg/l 84 days

Chronic NOEC for Crustacea 300 µg/l 3 months

Chronic NOEC for Algae / Aquatic Plants 20 µg/l 4 days

Butane

LC50 - for Fish > 24,11 mg/l/96h

Propane

LC50 - for Fish 85,82 mg/l/96h

EC50 - for Crustacea 41,82 mg/l/48h

Isobutyl acetate	
LC50 - for Fish	16,6 mg/l/96h
EC50 - for Crustacea	24,6 mg/l/48h
EC50 - for Algae / Aquatic Plants	321,5 mg/l/72h
Chronic NOEC for Crustacea	23,2 mg/l 21 days
Chronic NOEC for Algae / Aquatic Plants	1505 mg/l 72 h

Hydrocarbons, C6, isoalkanes	
LC50 - for Fish	8,41 mg/l/96h
EC50 - for Crustacea	4,7 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 12 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	6,47 mg/l

Isobutane	
LC50 - for Fish	> 24,11 mg/l/96h

12.2. Persistence and degradability

Propane

Global Warming Potential (GWP): 3. Ozone Depletion Potential (ODP): 0.

Hydrocarbons, C10-C13, n-alkanes,
isoalkanes, cyclics, <2% aromatics

Rapidly degradable

But failing the 10-day window (100%).

Aluminium Powder (stabilised)

Solubility in water	0 mg/l
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Degradability: information not available

Zinc Powder (stabilised)

Solubility in water	0,1 - 100 mg/l
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Degradability: information not available

Xylene (Mixture of isomers)

Solubility in water	100 - 1000 mg/l
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Rapidly degradable

Butane

Solubility in water	0,1 - 100 mg/l
---------------------	----------------

Rapidly degradable

Propane

Solubility in water	0,1 - 100 mg/l
---------------------	----------------

Rapidly degradable

Isobutyl acetate

Solubility in water	1000 - 10000 mg/l
---------------------	-------------------

Rapidly degradable

Hydrocarbons, C6, isoalkanes

Rapidly degradable

Isobutane

Rapidly degradable

12.3. Bioaccumulative potential

Xylene (Mixture of isomers)

Partition coefficient: n-octanol/water	3,12
BCF	25,9

Butane	
Partition coefficient: n-octanol/water	1,09

Propane	
Partition coefficient: n-octanol/water	1,09

Isobutyl acetate	
Partition coefficient: n-octanol/water	2,3
BCF	15,3

12.4. Mobility in soil

Xylene (Mixture of isomers)	
Partition coefficient: soil/water	2,73

Hydrocarbons, C6, isoalkanes	
Partition coefficient: soil/water	1,78

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage $\geq$ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Product residues are to be considered special hazardous waste.

Empty cans, even if completely emptied, must not be dispersed in the environment.

The aerosol container overheated to a temperature above 50 ° C may burst even if it contains a small residue of gas.

Disposal must take place in an authorized place and in compliance with the laws in force.

The transport of waste may be subject to ADR.

European waste catalog code (contaminated containers):

Carima Srl

Revision nr. 6

Dated 09/01/2023

ZINC SPAY 400ml

Printed on 25/01/2023

Page n. 21/25

Replaced revision:5 (Dated: 31/08/2021)

Aerosol as domestic waste is excluded from the application of the aforementioned rule.

The exhausted aerosol for professional / industrial use can be classified:

15.01.11 *: metallic packaging containing dangerous solid porous matrices, including empty pressure containers.

SECTION 14. Transport information**14.1. UN number or ID number**

ADR / RID, IMDG, IATA: 1950

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1

**14.4. Packing group**

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO



For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID: HIN - Kemler: --

Limited
Quantities: 1
LTunnel
restriction
code: (D)

IMDG: Special provision: -

EMS: F-D, S-U

Limited
Quantities: 1
L

IATA: Cargo:

Maximum
quantity: 150
KgPackaging
instructions:
203

Carima Srl

ZINC SPAY 400ml

Revision nr. 6

Dated 09/01/2023

Printed on 25/01/2023

Page n. 22/25

Replaced revision:5 (Dated: 31/08/2021)

Pass.:

Special provision:

Maximum
quantity: 75
Kg
A145, A167,
A802

Packaging
instructions:
203

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P3a-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage $\geq$ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

VOC (Directive 2004/42/EC) :

Special finishes.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Flam. Sol. 1	Flammable solid, category 1
Water-react. 2	Substance or mixture which in contact with water emits flammable gas, category 2
Press. Gas	Pressurised gas
Press. Gas (Liq.)	Liquefied gas
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
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.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.

H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
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.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)

Carima Srl

Revision nr. 6

Dated 09/01/2023

ZINC SPAY 400ml

Printed on 25/01/2023

Page n. 25/25

Replaced revision:5 (Dated: 31/08/2021)

21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 08 / 09 / 11 / 12 / 14 / 15.