

Safety Data Sheet

ZINCO SPRAY

1. Identification of the substance / of the preparation and company

1.1 Identification of the substance or preparation	
Denomination	ZINCO SPRAY
1.2 Use of the substance / preparation	Cold galvanizing zinc spray.
1.3 Identification of the company	
Name of the company	SOPRIN S.r.l.
Address	Via dell'Industria 106
Town and State	Maserada Sul Piave (TREVISO) – ITALIA
	tel. (+39) 0422.521025
	fax (+39) 0422.521060
e-mail of the person responsible of the safety data sheet	Alessandro Padovan e-mail soprin@soprin.it
1.4 Phone number for emergency calls	(+39) 0422.521025 during office hours

2. Hazard identification

2.1 Classification of the substance or the preparation

The preparation is classified as hazardous according to EEC directives 67/548 and 1999/45/CE as amended and corrected. Therefore the preparation requests a material safety data sheet in compliance with the EEC Regulations 1907/2006 and following amendments.

Under section 11 and 12 of this material safety data sheet there is further information about risks for health and/or ambient.

Hazard symbols: F+ - Xn - N R-phrases: 12 - 20/21 - 38 - 50/53

2.2 Hazards identification

The product, based on its chemical and physical properties, has to be considered as extremely flammable (flash point less than 0°C and boiling point/start of boiling less than or equal to 35°C).

HARMFUL BY INHALATION AND IN CONTACT WITH SKIN. IRRITATING TO SKIN. VERY TOXIC TO AQUATIC ORGANISM, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

3. Composition / Information on ingredients

Contains:

Denomination	Concentration (C)	Classification
ISOBUTANE Cas No 74-84-0 CE No 200-814-8 Index No 601-002-00-X	4,5 ≤ C < 5	F+ R12
ZINC POWDER (STABILIZED) Cas No 7440-66-6 CE No 231-175-3 Index No 030-002-00-7	8 ≤ C < 9	N R50/53
XYLENE Cas No 1330-20-7 CE No 215-535-7 Index No 601-022-00-9	18 ≤ C < 19,5	R10 Xn R20/21 Xi R38 Note C
BUTANE Cas No 106-97-8 CE No 203-448-7 Index No 601-004-00-0	10,5 ≤ C < 12	F+ R12 Note C
PROPANE Cas No 74-98-6 CE No 200-827-9 Index No 601-003-00-5	28,5 ≤ C < 30	F+ R12
CYCLOHEXANE Cas No 110-82-7 CE No 203-806-2 Index No 601-017-00-1	10 ≤ C < 11,5	R67 F R11 Xn R65 Xi R38 N R50/53 Note 4
CUMENE Cas No 98-82-8 CE No 202-704-5	0,5 ≤ C < 0,6	R10 Xn R65 Xi R37

Index No 601-024-00-X MESITYLENE	0,3 <= C < 0,4	N	R51/53 Note 4 R10
Cas No 108-67-8		Xi	R37
CE No 203-604-4		N	R51/53
Index No 601-025-00-5 1,2,4-TRIMETHYLBENZENE	1 <= C < 1,5		R10
Cas No 95-63-6		Xn	R20
CE No 202-436-9		Xi	R36/37/38
Index No 601-043-00-3 NAPHTHA(PETROLEUM), HYDROTREATED HEAVY	1,5 <= C < 2	N	R51/53
Cas No 64742-48-9		Xn	R65
CE No 265-150-3			Note H P 4
Index No 649-327-00-6 SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	2 <= C < 2,5	Xn	R65
Cas No 64742-95-6			Note H P 4
CE No 265-199-0			
Index No 649-356-00-4 ZINC OXIDE	0,5 <= C < 0,6	N	R50/53
Cas No 1314-13-2			
CE No 215-222-5			
Index No 030-013-00-7			

The complete text of the R-phrases is written under section 16 of the sheet.

4. First aid interventions

EYES: rinse immediately with plenty of water for at least 15 minutes and seek medical advice.

SKIN: wash immediately with plenty of water. Remove contaminated clothing. Seek medical advice if irritation persists. Wash contaminated clothing separately before using them again.

INHALATION: supply fresh air; if not breathing or if breathing is irregular, seek immediately medical attention.

INGESTION: seek immediately medical attention. Do not induce vomiting, neither administer anything not authorized by the physician.

5. Fire-fighting measures

Closed containers to heat may generate overpressure and explode. Information about ambient and health risks, about protection for the respiratory tract, about ventilation and individual means of protection are written in other sections of this data sheet.

Extinguishing media: CO₂, foam, chemical powder for flammable liquids. Water may not be efficient to extinguish the fire, but it should be used to cool down the containers which are exposed to fire in order to prevent explosions. For the leakages not involved in fire, vaporized water can be used to disperse flammable vapours and to protect the persons who try to stop the leakage.

Equipment: wear a complete equipment with visor, head and neck protection, pressure-demand breathing apparatus, fireproof overall with stripes around arms, legs and waist.

6. Accidental release measures

Do not let the product dry in order to avoid danger of combustion. Remove all sources of ignition. Cover with absorbent inert material and collect the remaining product with anti-spark equipment. Use water only to remove the residual product, in order to avoid its entering into the sewer system. Concerning information about ambient/health risks and means of protection, refer to the specific sections of this data sheet. Immerse contaminated clothes in water before washing them.

Leakages in water: remove the liquid from the surface with an anti-deflagration pump, a manual pump or with suitable absorbent material. If legally permitted, in open waters it is possible to sink and/or disperse the product with suitable substances.

7. Handling and storage

Avoid accumulation of electrostatic charges. Store the containers closed and in a well ventilated place. The vapours may catch fire with an explosion, therefore it is necessary to avoid the accumulation of the vapours, open the windows and doors, assuring this way a crossed ventilation. Without a suitable ventilation the vapours may accumulate close to the ground and catch fire also at a distance, if primed, creating danger of backfire.

Keep away from heat, sparks and open flames, do not smoke nor use matches or fire lighters. Earth the containers during the operations of pouring off and wear antistatic shoes.

Strong agitation or quick flowing of the liquid inside the piping and equipment may cause the formation and accumulation of electrostatic charges, caused by the low conductivity of the product. In order to avoid danger of fire or explosion, never use compressed air during handling. Open the containers with care, as they may be under pressure.

8. Exposure control / Personal protection

8.1 Exposure limit values

Description	Type	State	TWA/8h		STEL/15min		
			mg/m ³	ppm	mg/m ³	ppm	
XILENE	TLV-ACGIH		434		651		Skin
	OEL	EU	221				
BUTANE	TLV-ACGIH		2377				Skin
	TLV	CH	1900	800			
CYCLOHEXANE	TLV-ACGIH		344				
	TLV	CH	700	200	2800	800	
	OEL	EU	700	200			
CUMENE	TLV-ACGIH		246				Skin
	OEL	EU	100				
MESITYLENE	TLV-ACGIH			25			Skin
	OEL	EU	100	20			
1,2,4-TRIMETHYLBENZENE	TLV-ACGIH		123				Skin
	OEL	EU	100				
ZINC OXIDE	TLV-ACGIH		2		10		Skin

8.2 Exposure controls

To contain the exposition, use individual means of protection, suitable for the specific work, as e.g.: suitable mask, goggles, gloves and overall.

Do not eat, drink or smoke during use; wash hands carefully with water and soap before eating and after the working shift.

9. Physical and chemical properties

Vapour density	not available
Evaporation speed	not available
Combustion-related properties	not available
Partition coefficient: n-octanol/water:	not available
Explosive properties	not available
Vapour pressure	not available
Aspect:	Liquid suspension under pressure.
Odour:	Aromatic.
pH:	not available
Boiling point:	<35°C
Flash Point (closed recipient):	- 104°C (propane)
Specific weight at 20°C:	0,75 +/- 0,05 g/cm ³
Pressure at 20°C:	5,0 +/- 0,5 bar
Pressure at 50°C:	7,5 +/- 0,5 bar
Solubility in water:	insoluble
Solubility in organic solvents:	soluble

10. Stability and reactivity

The product is stable during normal use and storage conditions. Caused by heat or in case of fire, carbon oxides and vapours may be released that may be harmful for the health. Vapours may form explosive mixtures with air.

ZINC POWDER: reacts in contact with strong acid and alkaline, forming hydrogen, that is explosive; likewise it reacts with water, but less violently. Therefore water is not suitable for fire fighting.

XILENE: is stable but can react violently in presence of strong oxidants as sulphuric acid, nitric acid and perchlorate. It is biodegradable in water and it decomposes if exposed at light (photo biodegradable).

CYCLOHEXANE: even if very stable, it can violently react with strong oxidants. Incompatible materials are: butyl rubber, natural rubber, neoprene, PVC, polyethylene.

11. Toxicological information (concerning Xilene)

Acute effects: the product is harmful if inhaled and if absorbed through skin: it may provoke irritation of the mucous, of the upper respiratory tract and of the eyes.

The exposure symptoms may include: irritation of eyes, mouth nose and throat; cough, breathing difficulties, dizziness, cephalaea, nausea e vomit. In the most serious cases, the inhalation of the product may provoke inflammation and oedema of the larynx and bronchus, chemical pneumonia and pulmonary oedema. The product may cause irritation of the part of the body that has been in contact with it, with raise of the skin temperature, swelling, itch.

Swallowing even small quantities of product may provoke genera health ailment (abdominal pain, nausea, vomit and diarrhoea).

Xilene: toxic effects on the central nervous system (encephalopathy); irritant effects on skin, conjunctivitis, cornea and breathing apparatus.

Cyclohexane is irritating to skin and mucous and might be absorbed through skin; the neuro-damage may occur in case of high dosage and in the majority of the cases caused by cyclohexanone, its metabolite.

CUMENE: oral LD50 (mg/kg) 1400 (RAT) ; dermal LD50 (mg/kg) 12300 (RABBIT).

12. Ecological information

The product has to be considered harmful for the ambient and is highly toxic for the aquatic organisms and on long term there is a possibility of provoking negative effects for the aquatic ambient.

Cyclohexane may be harmful for the aquatic organisms, but this has low practical importance, as the product normally evaporates. If dumped in deep water (in absence of air), it should not accumulate inside the fish, because its tendency is to biodegrade. On soil a small part that does not evaporate will be partially absorbed and a part will flow toward the subterranean layers, but, also in this case the practical consequences are negligible.

ZINC POWDER: (STABILIZED)	EC50 (48h): 2,8 mg/l/48h IC50 (72h): 0,015 mg/l/72h LC50 (96h): 7,1 mg/l/96h	Daphnia magna Pseudokirchneriella subcapitata Nothobranchius guentheri
CYCLOHEXANE:	EC50 (48h): 3,89 mg/l/48h IC50 (72h): 32,7 mg/l/72h LC50 (96h): 4,53 mg/l/96h	Daphnia magna Chlorella vulgaris Pimephales promelas
ZINC OXIDE:	EC50 (48h): 1000 mg/l/48h LC50 (96h): 1,1 mg/l/96h	Daphnia magna Oncorhynchus mykiss

13. Disposal considerations

Check the possibility to burn the product in suitable incinerator.

In case of acid or basic product, it's necessary to proceed always with the neutralization before whatever kind of treatment, including the biological one, if practicable.

If the waste is solid, it can be disposed in dumping in accordance with the authorizations and directives in force. This criteria is also valid for empty containers, after an adequate washing. Do never dump in sewer systems or in surface water or in underground water.

14. Transport information

Transport only by vehicles authorized to carry dangerous goods, in accordance with the ADR agreement and the applicable national instructions.

Transport has to be carried out only in original packing and anyhow in packaging not attackable by its content and not generating dangerous reaction with it. Personnel committed to loading and unloading dangerous goods has to be properly trained about possible risks of handling the product and about procedures to follow in case of emergency situations.

Land / Rail transport:

ADR/RID class:	2
UN:	1950
Labelling:	2.1
Technical name:	Aerosols

Sea transport:

IMO class:	2.1
UN:	1950
Label:	2.1
EMS:	F-D, S-U
Proper Shipping Name:	Aerosols

Air transport:

IATA:	2.1
UN:	1950
Label:	2.1

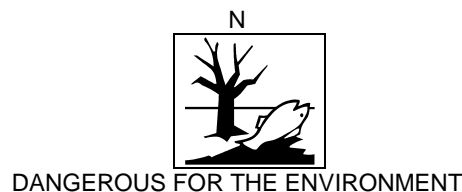
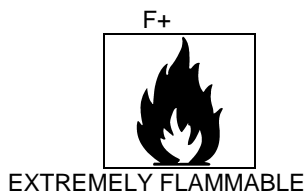
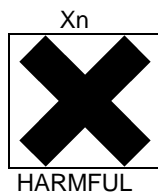
Cargo:

Packing instructions:	203
Max. quantity:	150 kg

Pass.:

Packing instructions:	203
Max. quantity:	75 kg

15. Regulatory information



R12	EXTREMELY FLAMMABLE.
R20/21	HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.
R38	IRRITATING TO SKIN.
R50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
S 2	KEEP OUT OF THE REACH OF CHILDREN.
S23	DO NOT BREATHE SPRAY.
S29	DO NOT EMPTY INTO DRAINS.
S36/37	WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.
S46	IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.
S61	AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEET.

Contains: XILENE CYCLOHEXANE

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn even after use. Do not spray on a naked flame or any incandescent material. Store away from any source of combustion. Do not smoke. Keep out of reach of children.

Classification and hazard labelling have been performed in accordance with EU directives 67/548 and 1999/45 as amended and adapted.

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.

Emissions:

TAB. D Class 3 01,90 %

TAB. D Class 4 18,00 %

TAB. D Class 5 60,00 %

16. Other information

Text of the R-phrases mentioned in section 3 of the data sheet:

R10	FLAMMABLE.
R11	HIGHLY FLAMMABLE.
R12	EXTREMELY FLAMMABLE.
R20	HARMFUL BY INHALATION.
R20/21	HARMFUL BY INHALATION AND IF SWALLOWED.
R36/37/38	IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
R37	IRRITANT TO RESPIRATORY SYSTEM.
R38	IRRITANT TO SKIN.
R50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
R65	HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

GENERAL BIBLIOGRAPHY:

1. Directive 1999/45/CE and amendments.
2. Directive 67/548/CEE and amendments and adaptations (XXIX technical adaptation)
3. Regulation (CE) 1907/2006 of the European Parliament (REACH)
4. The Merck Index. Ed. 10
5. Handling Chemical Safety
6. Niosh - Registry of Toxic Effects of Chemical Substances
7. INRS - Fiche Toxicologique
8. Patty - Industrial Hygiene and Toxicology
9. N.I. Sax - Dangerous properties of Industrial Materials-7 Ed., 1989

Notice to user:

The information above is believed to be accurate and represents the best information currently available to us. Users should make their own investigations to determine the suitability of the information for their particular purposes.

However, we make no warranty with respect to such information and of any property of the product, and we assume no liability resulting from its use.

As the use of the products is not under our direct control, it is the duty of the user to observe under its own responsibility all hygiene and safety regulations in force.

Amendments made compared to previous revision

The following sections have been modified:

01