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SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: NZA B - AEROSOL

Product code: 706 A.

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

Anticorrosion coating Professional use

1.3. Details of the supplier of the safety data sheet

Registered company name: ORAPI.

Address: PARC INDUSTRIEL DE LA PLAINE DE L'AIN - 225 ALLEE DES CEDRES.01150.SAINT-VULBAS.FRANCE.

Telephone: 33-(0)4-74-40-20-20. Fax: 33-(0)4-74-40-20-21.

fds@orapi.com

1.4. Emergency telephone number: 33-(0)1-45-42-59-59.

Association/Organisation: INRS.

Other emergency numbers

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Aerosol, Category 1 (Aerosol 1, H222 - H229).

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

2.2. Label elements

Mixture for aerosol application.

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms:







GHS07 Signal Word :

7 GHS09

GHS02

DANGER

Product identifiers:

Froduct identifiers:

EC 931-254-9 HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

Hazard statements:

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements - General:

P102 Keep out of reach of children.

Precautionary statements - Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P251 Do not pierce or burn, even after use.

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P260 Do not breathe spray.

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

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response :

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

Precautionary statements - Storage :

P410 + P412 Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \geq 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition:

Identification	(EC) 1272/2008	Note	%
INDEX: 1040	GHS07, GHS09, GHS08, GHS02		50 <= x % < 100
EC: 931-254-9	Dgr		
REACH: 01-2119484651-34	Flam. Liq. 2, H225		
	Asp. Tox. 1, H304		
HYDROCARBONS, C6, ISOALKANES, <5%	Skin Irrit. 2, H315		
N-HEXANE	STOT SE 3, H336		
	Aquatic Chronic 2, H411		
INDEX: 014	GHS02	[1]	10 <= x % < 25
CAS: 109-87-5	Dgr		
EC: 203-714-2	Flam. Liq. 2, H225		
REACH: 01-2119664781-31	1 mm Erq. 2, 11220		
1 211/00 1/01 DI			
METHYLAL			
INDEX: 648_010_00_X	GHS07, GHS08, GHS02	J	2.5 <= x % < 10
CAS: 90989-38-1	Dgr		2.0 1 17,0 110
EC: 292-694-9	Flam. Liq. 3, H226		
REACH: 01-2119486136-34	Asp. Tox. 1, H304		
REACH. 01 2117400130 34	Acute Tox. 4, H312		
AROMATIC HYDROCARBONS, C8	Skin Irrit. 2, H315		
AROMATIC TIT DROCARDONS, Co	Eye Irrit. 2, H319		
	Acute Tox. 4, H332		
	STOT SE 3, H335		
	STOT RE 2, H373		
	Aquatic Chronic 3, H412		
INDEX: 0608	GHS04	[1]	2.5 <= x % < 10
CAS: 124-38-9	Wng	[7]	2.3 <- x 70 < 10
EC: 204-696-9	Press. Gas, H280	[/]	
EC. 204-090-9	riess. Gas, rizou		
CARBON DIOXIDE			
INDEX: 013-002-00-1	GHS02	Т	0 <= x % < 2.5
CAS: 7429-90-5	Dgr	[1]	
EC: 231-072-3	Water-react. 2, H261		
REACH: 01-2119529243-45	Flam. Sol. 1, H228		
	,		
ALUMINIUM POWDER (STABILISED)			
INDEX: 030_001_01_9	GHS09		0 <= x % < 2.5
CAS: 7440-66-6	Wng		
EC: 231-175-3	Aquatic Acute 1, H400		
REACH: 01-2119467174-37	M Acute = 1		
	Aquatic Chronic 1, H410		
ZINC POWDER - ZINC DUST (STABILISED)	M Chronic = 1		
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INDEX: 030_013_00_7	GHS09	[1]	0 <= x % < 2.5
CAS: 1314-13-2	Wng		
EC: 215-222-5	Aquatic Acute 1, H400		
REACH: 01-2119463881-32	M Acute = 1		
	Aquatic Chronic 1, H410		
ZINC OXIDE	M Chronic = 1		

Information on ingredients:

[7] Propellant gas

[1] Substance for which maximum workplace exposure limits are available.

Note J: The carcinogen or mutagen classification does not apply because the substance contains less than 0.1 % w/w of benzene (EINECS 200-753-7).

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Consult a physician in case of disorder.

In the event of splashes or contact with eyes:

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

In the event of splashes or contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

Not to use solvents or thinners.

In the event of swallowing:

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

SECTION 5: FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use:

- foam
- carbon dioxide (CO2)
- powder

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use:

- water jet
- water

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5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO2)
- oxides of metal
- various hydrocarbons
- aldehydes

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Avoid contact with skin, eyes and clothings.

Do not breathe vapours, fumes and mist.

Fire prevention:

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Do not spray on a naked flame or any incandescent material.

Do not pierce or burn, even after use.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

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Recommended equipment and procedures:

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not breathe in aerosols.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Keep the container away from heat, bad weather, dampness and freezing.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

- European Union (2017/164/UE, 2009/161/UE, 2006/15/CE, 2000/39/CE, 98/24/CE)

CAS	VME-mg/m3:	VME-ppm:	VLE-mg/m3:	VLE-ppm:	Notes:
124-38-9	9000	5000	-	-	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
109-87-5	1000 ppm				
124-38-9	5000 ppm	30,000 ppm			
7429-90-5	2 mg/m3	-	-	-	-
1314-13-2	2 (R) mg/m3	10 (R) mg/m3			

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

Octiminary 710	in (Dilai III)	05 700, 21/00/2010).	
CAS	VME:	VME: Exce	ss Notes
109-87-5		1000 ppm	2(II)
		3200 mg/m3	
124-38-9		5000 ppm	2(II)
		9100 mg/m3	

- France (INRS - ED984:2012):

	, .					
CAS	VME-ppm:	VME-mg/m3:	VLE-ppm:	VLE-mg/m3:	Notes:	TMP No:
109-87-5	1000	3100	-	-	-	84
124-38-9	5000	9000	-	-	-	-
7429-90-5	-	10	-	-	-	-
1314-13-2	-	5	-	-	-	-

N-Hexane (CAS $n^{\circ}110-54-3$): VME = 72 mg/m3 = 20 ppm (INRS), VME = 50 ppm (ACGIH)

- UK / WEL (Workplace exposure limits, EH40/2005, 2007):

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CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
109-87-5	1000 ppm	1250 ppm			
	3160 mg/m3	3950 mg/m3			
124-38-9	5000 ppm	15000 ppm			
	9150 mg/m3	27400 mg/m3			
7429-90-5	2 mg/m3	-	-	-	-

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

ZINC OXIDE (CAS: 1314-13-2)

Final use: Workers.

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 87 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects. DNEL: 5 mg of substance/m3

Final use: Consumers.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects.

DNEL: 0.83 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 87 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.

DNEL: 2.5 mg of substance/m3

AROMATIC HYDROCARBONS, C8 (CAS: 90989-38-1)

Final use:Exposure method:
Workers.
Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 180 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Short term systemic effects. DNEL: 289 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term local effects.

DNEL: 289 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.
DNEL: 77 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Long term local effects.
DNEL: 77 mg of substance/m3

Final use: Consumers.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects.

DNEL: 1.6 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

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DNEL: 108 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Short term systemic effects.

DNEL: 174 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term local effects.
DNEL: 174 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.

DNEL: 14.8 mg of substance/m3

METHYLAL (CAS: 109-87-5)

Final use: Workers.
Exposure method: Dermal contact.

Potential health effects: Dermai contact.

Long term systemic effects.

DNEL: 17.9 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.

DNEL: 126.6 mg of substance/m3

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

Final use: Workers.

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 13964 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.
DNEL: 5306 mg of substance/m3

Final use: Consumers.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects.

DNEL: 1301 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 1377 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.

DNEL: 1131 mg of substance/m3

Predicted no effect concentration (PNEC):

ZINC OXIDE (CAS: 1314-13-2)

Environmental compartment: Soil.
PNEC: 35.6 mg/l

Environmental compartment: Fresh water. PNEC: 0.02 mg/l

Environmental compartment: Sea water. PNEC: 0.006 mg/l

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Environmental compartment: Fresh water sediment.

PNEC: 0.052 mg/l

Environmental compartment: Marine sediment. PNEC: 56.5 mg/kg

METHYLAL (CAS: 109-87-5)

Environmental compartment: Soil.

PNEC: 4.6538 mg/kg

Environmental compartment: Fresh water. PNEC: 14.577 mg/l

Environmental compartment: Sea water. PNEC: 1.4577 mg/l

Environmental compartment: Fresh water sediment.

PNEC: 13.135 mg/kg

Environmental compartment: Marine sediment. PNEC: 1.3135 mg/kg

Environmental compartment: Waste water treatment plant.

PNEC: 10 g/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended:

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVA (Polyvinyl alcohol)

Recommended properties:

- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing:

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing vapours.

If the ventilation is insufficient, wear appropriate breathing apparatus.

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When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Not relevant.

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Type of FFP mask:

Wear a disposable half-mask aerosol filter in accordance with standard EN149.

Category:

- FFP1

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387:

- AX (Brown)

Particle filter according to standard EN143:

- P (White)

pH:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information:

Physical state : Fluid liquid. Spray.

Important health, safety and environmental information

Boiling point/boiling range: Not relevant. Vapour pressure (50°C): Not relevant. Density: 0.75 Water solubility: Insoluble. Melting point/melting range: Not relevant. Not relevant. Self-ignition temperature: Decomposition point/decomposition range: Not relevant. Chemical combustion heat: Not specified. Inflammation time: Not specified. Deflagration density: Not specified. Inflammation distance: Not specified. Flame height: Not specified. Flame duration: Not specified.

9.2. Other information

Color: gray aluminium

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid:

- heating
- heat
- accumulation of electrostatic charges.
- flames and hot surfaces
- humidity
- sources of ignition

10.5. Incompatible materials

Keep away from:

- acids

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- bases
- oxidising agents
- oxidising material
- water
- halogen compounds

10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- carbon monoxide (CO)
- carbon dioxide (CO2)
- oxides of metal
- various hydrocarbons
- aldehyde

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

11.1.1. Substances

Acute toxicity:

AROMATIC HYDROCARBONS, C8 (CAS: 90989-38-1)

Oral route : LD50 = 3523 mg/kg

Species: Rat

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

Oral route : LD50 > 16750 mg/kg

Species: Rat

OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 3350 mg/kg

Species: Rabbit

OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Vapours): LC50 = 259354 mg/m3

Species: Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

Germ cell mutagenicity:

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

No mutagenic effect.

Carcinogenicity:

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

Carcinogenicity Test: Negative.

No carcinogenic effect.

Reproductive toxicant:

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

No toxic effect for reproduction

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11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12: ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

ZINC OXIDE (CAS: 1314-13-2)

Fish toxicity: LC50 = 320 mg/l

Species : Lepomis macrochirus Duration of exposure : 96 h

Crustacean toxicity: EC50 = 1 mg/l

Factor M = 1

Species : Daphnia magna Duration of exposure : 48 h

Algae toxicity: ECr50 = 0.136 mg/l

Factor M = 1

Species : Selenastrum capricornutum

Duration of exposure: 72 h

 $\begin{aligned} NOEC &= 0.017 \ mg/l \\ Factor \ M &= 1 \end{aligned}$

Species: Pseudokirchnerella subcapitata

Duration of exposure: 72 h

ZINC POWDER - ZINC DUST (STABILISED) (CAS: 7440-66-6)

Fish toxicity: LC50 = 0.238 mg/l

Factor M = 1

Species : Pimephales promelas Duration of exposure : 96 h

Crustacean toxicity: EC50 = 0.354 mg/l

Factor M = 1

Species : Daphnia magna Duration of exposure : 48 h

NOEC = 0.073 mg/lFactor M = 1

Species : Daphnia magna Duration of exposure : 21 days

Algae toxicity: ECr50 = 0.106 mg/l

Species: Pseudokirchnerella subcapitata

Duration of exposure: 72 h

AROMATIC HYDROCARBONS, C8 (CAS: 90989-38-1)

Fish toxicity : LC50 = 2.6 mg/l

Duration of exposure: 96 h

Crustacean toxicity: EC50 = 1 mg/l

Species : Daphnia magna Duration of exposure : 48 h

Algae toxicity: ECr50 = 2.2 mg/l

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Duration of exposure: 72 h

NOEC = 0.44 mg/l

Duration of exposure: 72 h

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

Fish toxicity: LC50 = 18.3 mg/l

Species : Oncorhynchus mykiss Duration of exposure : 96 h

Crustacean toxicity: EC50 = 31.9 mg/l

Species : Daphnia magna Duration of exposure : 48 h

Algae toxicity: ECr50 = 13.6 mg/l

Species: Pseudokirchnerella subcapitata

Duration of exposure: 72 h

Aquatic plant toxicity: Duration of exposure: 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

ZINC POWDER - ZINC DUST (STABILISED) (CAS: 7440-66-6)

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly.

AROMATIC HYDROCARBONS, C8 (CAS: 90989-38-1)

Biodegradability: Rapidly degradable.

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly.

12.3. Bioaccumulative potential

12.3.1. Substances

HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE Octanol/water partition coefficient : log Koe = 3.6

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

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Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14: TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2017 - IMDG 2016 - ICAO/IATA 2017).

14.1. UN number

1950

14.2. UN proper shipping name

UN1950=AEROSOLS, flammable

14.3. Transport hazard class(es)

- Classification:



2.1

14.4. Packing group

-

14.5. Environmental hazards

- Environmentally hazardous material :



14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	2	5F	-	2.1	-	1 L	190 327 344 625	E0	2	D

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ
	2	See SP63	-	See SP277	F-D,S-U	63 190 277 327	E0
						344 381 959	

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	2.1	-	-	203	75 kg	203	150 kg	A145	E0
								A167	
								A802	
	2.1	-	-	Y203	30 kg G	-	-	A145	E0
								A167	
								A802	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15: REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 75/324/CEE modified by directive 2013/10/UE
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2016/1179. (ATP 9)

- Container information:

No data available.

- Particular provisions :

No data available.

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15.2. Chemical safety assessment

No data available.

SECTION 16: OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure .
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.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations:

DNEL: Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods. IATA: International Air Transport Association. ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

 $WGK: Wasserge fahrdungsklasse \ (Water \ Hazard \ Class).$

GHS02: Flame

GHS07 : Exclamation mark GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic. vPvB: Very persistent, very bioaccumulable. SVHC: Substances of very high concern.