



MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

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

1.1 Product identifier: MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

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

Relevant uses: Paint. For professional user/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

MORAVIA BOYA VE KİMYA SAN.TİC.LTD.ŞTİ
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1.4 Emergency telephone number:

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 4: Acute toxicity, Category 4, H312+H332

Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410

Eye Irrit. 2: Eye irritation, Category 2, H319

Flam. Liq. 3: Flammable liquids, Category 3, H226

Skin Irrit. 2: Skin irritation, Category 2, H315

Skin Sens. 1: Sensitisation, skin, Category 1, H317

Water-react. 1: Substances and mixtures giving off flammable gases when wet, Category 1, H260

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger



Hazard statements:

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

Eye Irrit. 2: H319 - Causes serious eye irritation

Flam. Liq. 3: H226 - Flammable liquid and vapour

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

Water-react. 1: H260 - In contact with water releases flammable gases which may ignite spontaneously

Precautionary statements:

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

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

P302+P335+P334: IF ON SKIN: Brush off loose particles from skin. Immerse in cool water

P302+P352: IF ON SKIN: Wash with plenty of water

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

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

P370+P378: In case of fire: Use ABC powder extinguisher to extinguish

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Supplementary information:

EUH205: Contains epoxy constituents. May produce an allergic reaction

Substances that contribute to the classification

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A
SECTION 2: HAZARDS IDENTIFICATION (continued)

Xylene; reaction product: bisphenol-A-(epichlorhydrin) (MW < 700); 2-butoxyethanol; 4-methylpentan-2-one

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
3.1 Substance:

Non-applicable

3.2 Mixture:
Chemical description: Miscellaneous products

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 7440-66-6 EC: 231-175-3 Index: 030-001-00-1 REACH: 01-2119467174-37-XXXX	Zinc powder - zinc dust (pyrophoric)⁽¹⁾ Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Pyr. Sol. 1: H250; Water-react. 1: H260 - Danger ATP CLP00	50 - <75 %
CAS: 1330-20-7 EC: 215-535-7 Index: 601-022-00-9 REACH: 01-2119488216-32-XXXX	Xylene⁽¹⁾ Regulation 1272/2008	Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning ATP CLP00	2,5 - <10 %
CAS: 25068-38-6 EC: 500-033-5 Index: 603-074-00-8 REACH: 01-2119456619-26-XXXX	reaction product: bisphenol-A-(epichlorhydrin) (MW < 700)⁽¹⁾ Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning ATP CLP00	2,5 - <10 %
CAS: 111-76-2 EC: 203-905-0 Index: 603-014-00-0 REACH: 01-2119475108-36-XXXX	2-butoxyethanol⁽¹⁾ Regulation 1272/2008	Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning ATP CLP00	2,5 - <10 %
CAS: 108-10-1 EC: 203-550-1 Index: 606-004-00-4 REACH: 01-2119473980-30-XXXX	4-methylpentan-2-one⁽¹⁾ Regulation 1272/2008	Acute Tox. 4: H332; Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H335; EUH066 - Danger ATP CLP00	1 - <2,5 %
CAS: 78-83-1 EC: 201-148-0 Index: 603-108-00-1 REACH: 01-2119484609-23-XXXX	2-methylpropan-1-ol⁽¹⁾ Regulation 1272/2008	Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger ATP CLP00	1 - <2,5 %
CAS: 164383-18-0 EC: Non-applicable Index: Non-applicable REACH: Non-applicable	Isotridecylalcohol, ethoxylated, phosphated, compd. with N,N-dimethylcyclohexanamin e⁽¹⁾ Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning Self-classified	1 - <2,5 %

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES
4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 4: FIRST AID MEASURES (continued)

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

WARNING! In contact with water releases flammable gases which may ignite spontaneously. NEVER USE WATER TO EXTINGUISH THE FIRE. If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂)

5.2 Special hazards arising from the substance or mixture:

Product that reacts with water producing extremely flammable gases.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

AVOID CONTACT WITH WATER. Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those who do not have protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

DO NOT USE WATER TO CLEAN.

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A
SECTION 7: HANDLING AND STORAGE (continued)
7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

AVOID CONTACT WITH WATER. Transfer in well ventilated areas, preferably through localised extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres within containers, applying where possible inertization systems. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting security and health of the workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C
 Maximum Temp.: 30 °C
 Maximum time: 6 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

Identification	Occupational exposure limits		
	IOELV (8h)	50 ppm	221 mg/m ³
Xylene CAS: 1330-20-7 EC: 215-535-7	IOELV (STEL)	100 ppm	442 mg/m ³
	IOELV (8h)	20 ppm	98 mg/m ³
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	IOELV (STEL)	50 ppm	246 mg/m ³
	IOELV (8h)	20 ppm	83 mg/m ³
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	IOELV (STEL)	50 ppm	208 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Zinc powder - zinc dust (pyrophoric) CAS: 7440-66-6 EC: 231-175-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	5 mg/m ³	Non-applicable
Xylene CAS: 1330-20-7 EC: 215-535-7	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	Inhalation	289 mg/m ³	289 mg/m ³	77 mg/m ³	Non-applicable

- CONTINUED ON NEXT PAGE -



MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	8,33 mg/kg	Non-applicable	8,33 mg/kg	Non-applicable
	Inhalation	12,25 mg/m ³	Non-applicable	12,25 mg/m ³	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	89 mg/kg	Non-applicable	75 mg/kg	Non-applicable
	Inhalation	663 mg/m ³	246 mg/m ³	98 mg/m ³	Non-applicable
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	11,8 mg/kg	Non-applicable
	Inhalation	208 mg/m ³	208 mg/m ³	83 mg/m ³	83 mg/m ³
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Zinc powder - zinc dust (pyrophoric) CAS: 7440-66-6 EC: 231-175-3	Oral	Non-applicable	Non-applicable	0,83 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2,5 mg/m ³	Non-applicable
Xylene CAS: 1330-20-7 EC: 215-535-7	Oral	Non-applicable	Non-applicable	1,6 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	108 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14,8 mg/m ³	Non-applicable
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	Oral	0,75 mg/kg	Non-applicable	0,75 mg/kg	Non-applicable
	Dermal	3,571 mg/kg	Non-applicable	3,571 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	Non-applicable
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	13,4 mg/kg	Non-applicable	3,2 mg/kg	Non-applicable
	Dermal	44,5 mg/kg	Non-applicable	38 mg/kg	Non-applicable
	Inhalation	426 mg/m ³	123 mg/m ³	49 mg/m ³	Non-applicable
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	Oral	Non-applicable	Non-applicable	4,2 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	4,2 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	14,7 mg/m ³	Non-applicable
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	Oral	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	55 mg/m ³

PNEC:

Identification					
Zinc powder - zinc dust (pyrophoric) CAS: 7440-66-6 EC: 231-175-3	STP	0,1 mg/L	Fresh water	0,0206 mg/L	
	Soil	35,6 mg/kg	Marine water	0,0061 mg/L	
	Intermittent	Non-applicable	Sediment (Fresh water)	117,8 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	56,5 mg/kg	
Xylene CAS: 1330-20-7 EC: 215-535-7	STP	6,58 mg/L	Fresh water	0,327 mg/L	
	Soil	2,31 mg/kg	Marine water	0,327 mg/L	
	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg	
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	STP	10 mg/L	Fresh water	0,006 mg/L	
	Soil	0,196 mg/kg	Marine water	0,0006 mg/L	
	Intermittent	0,018 mg/L	Sediment (Fresh water)	0,996 mg/kg	
	Oral	11 g/kg	Sediment (Marine water)	0,0996 mg/kg	

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)



Identification				
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	STP	463 mg/L	Fresh water	8,8 mg/L
	Soil	3,13 mg/kg	Marine water	0,88 mg/L
	Intermittent	9,1 mg/L	Sediment (Fresh water)	34,6 mg/kg
	Oral	20 g/kg	Sediment (Marine water)	Non-applicable
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	STP	27,5 mg/L	Fresh water	0,6 mg/L
	Soil	1,3 mg/kg	Marine water	0,06 mg/L
	Intermittent	1,5 mg/L	Sediment (Fresh water)	8,27 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,83 mg/kg
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	STP	10 mg/L	Fresh water	0,4 mg/L
	Soil	0,0699 mg/kg	Marine water	0,04 mg/L
	Intermittent	11 mg/L	Sediment (Fresh water)	1,52 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,152 mg/kg

8.2 Exposure controls:
A.- General security and hygiene measures in the work place



As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN ISO 374-1:2016 EN 16523-1:2015 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"

D.- Ocular and facial protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face shield		EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties		EN ISO 13287:2012 EN ISO 20345:2011 EN 13832-1:2019	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	16,45 % weight
V.O.C. density at 20 °C:	386,46 kg/m ³ (386,46 g/L)
Average carbon number:	6,97
Average molecular weight:	104,68 g/mol

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Thixotropic
Colour:	 Grey
Odour:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	136 °C
Vapour pressure at 20 °C:	856 Pa
Vapour pressure at 50 °C:	4694,46 Pa (4,69 kPa)
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	2350 kg/m ³
Relative density at 20 °C:	2,35
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	>20,5 cSt
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Flammability:	
Flash Point:	24 °C
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	238 °C
Lower flammability limit:	Not available
Upper flammability limit:	Not available
Explosive:	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
9.2 Other information:	
Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Precaution	Risk of combustion	Avoid direct impact	In contact with water releases flammable gases which may ignite spontaneously

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	In contact with water releases flammable gases which may ignite spontaneously	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
IARC: Xylene (3); 4-methylpentan-2-one (2B); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Xylene CAS: 1330-20-7 EC: 215-535-7	2100 mg/kg	1100 mg/kg (ATEi)	Rat
	LC50 inhalation	11 mg/L (4 h) (ATEi)	
	LD50 oral	3350 mg/kg	Rat
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	2460 mg/kg	24,6 mg/L (4 h)	Rabbit
	LD50 dermal		
	LC50 inhalation		Rat

- CONTINUED ON NEXT PAGE -



MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	Acute toxicity		Genus
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	LD50 oral	1414 mg/kg	Rat
	LD50 dermal	1060 mg/kg	Rabbit
	LC50 inhalation	11 mg/L (4 h)	Rat
Isotridecylalcohol, ethoxylated, phosphated, compd. with N,N- dimethylcyclohexanamine CAS: 164383-18-0 EC: Non-applicable	LD50 oral	2500 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	LD50 oral	2080 mg/kg	
	LD50 dermal	Non-applicable	
	LC50 inhalation	11 mg/L (4 h) (ATEI)	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Zinc powder - zinc dust (pyrophoric) CAS: 7440-66-6 EC: 231-175-3	LC50	0.1 - 1 mg/L (96 h)		Fish
	EC50	0.1 - 1 mg/L		Crustacean
	EC50	0.1 - 1 mg/L		Algae
Xylene CAS: 1330-20-7 EC: 215-535-7	LC50	13.5 mg/L (96 h)	Oncorhynchus mykiss	Fish
	EC50	3.4 mg/L (48 h)	Ceriodaphnia dubia	Crustacean
	EC50	10 mg/L (72 h)	Skeletonema costatum	Algae
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L		Crustacean
	EC50	1 - 10 mg/L		Algae
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	LC50	1490 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	1815 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	911 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	LC50	900 mg/L (48 h)	Leuciscus idus	Fish
	EC50	862 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	980 mg/L (48 h)	Scenedesmus subspicatus	Algae
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	LC50	2030 mg/L (96 h)	Carassius auratus	Fish
	EC50	1439 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1250 mg/L (48 h)	Scenedesmus subspicatus	Algae
Isotridecylalcohol, ethoxylated, phosphated, compd. with N,N-dimethylcyclohexanamine CAS: 164383-18-0 EC: Non-applicable	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L		Crustacean
	EC50	1 - 10 mg/L		Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Xylene CAS: 1330-20-7 EC: 215-535-7	BOD5	Non-applicable	Concentration	Non-applicable
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	88 %
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	BOD5	0.71 g O2/g	Concentration	100 mg/L
	COD	2.2 g O2/g	Period	14 days
	BOD5/COD	0.32	% Biodegradable	96 %
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	BOD5	2.06 g O2/g	Concentration	100 mg/L
	COD	2.16 g O2/g	Period	14 days
	BOD5/COD	0.95	% Biodegradable	84 %

- CONTINUED ON NEXT PAGE -



MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
	2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	BOD5	0.4 g O2/g	Concentration
	COD	2.41 g O2/g	Period	14 days
	BOD5/COD	0.17	% Biodegradable	90 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	Xylene CAS: 1330-20-7 EC: 215-535-7	BCF
	Pow Log	2.77
	Potential	Low
reaction product: bisphenol-A-(epichlorhydrin) (MW < 700) CAS: 25068-38-6 EC: 500-033-5	BCF	4
	Pow Log	2.8
	Potential	Low
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	BCF	3
	Pow Log	0.83
	Potential	Low
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	BCF	2
	Pow Log	1.31
	Potential	Low
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	BCF	3
	Pow Log	0.76
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Xylene CAS: 1330-20-7 EC: 215-535-7	Koc	202	Henry
	Conclusion	Moderate	Dry soil	Yes
	Surface tension	Non-applicable	Moist soil	Yes
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Koc	8	Henry	1,621E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	2,729E-2 N/m (25 °C)	Moist soil	Yes
4-methylpentan-2-one CAS: 108-10-1 EC: 203-550-1	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2,35E-2 N/m (25 °C)	Moist soil	Non-applicable
2-methylpropan-1-ol CAS: 78-83-1 EC: 201-148-0	Koc	Non-applicable	Henry	Non-applicable
	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	2,378E-2 N/m (25 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP3 Flammable, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:



- | | |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 14.1 UN number: | UN3399 |
| 14.2 UN proper shipping name: | ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (Zinc powder - zinc dust (pyrophoric); Xylene) |
| 14.3 Transport hazard class(es): | 4.3 |
| Labels: | 4.3, 3 |
| 14.4 Packing group: | II |
| 14.5 Environmental hazards: | Yes |
| 14.6 Special precautions for user | |
| Special regulations: | 274 |
| Tunnel restriction code: | D/E |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 500 mL |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 39-18:



- | | |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 14.1 UN number: | UN3399 |
| 14.2 UN proper shipping name: | ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (Zinc powder - zinc dust (pyrophoric); Xylene) |
| 14.3 Transport hazard class(es): | 4.3 |
| Labels: | 4.3, 3 |
| 14.4 Packing group: | II |
| 14.5 Environmental hazards: | Yes |
| 14.6 Special precautions for user | |
| Special regulations: | 274 |
| EmS Codes: | F-G, S-N |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 500 mL |
| Segregation group: | Non-applicable |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 14: TRANSPORT INFORMATION (continued)



14.1 UN number:	UN3399
14.2 UN proper shipping name:	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE (Zinc powder - zinc dust (pyrophoric); Xylene)
14.3 Transport hazard class(es):	4.3
Labels:	4.3, 3
14.4 Packing group:	II
14.5 Environmental hazards:	Yes
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable
 Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
 Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable
 Article 95, REGULATION (EU) No 528/2012: Non-applicable
 REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P5c		5000	50000
E1		100	200
O2		100	500

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:

- metallic glitter intended mainly for decoration,
- artificial snow and frost,
- "whoopee" cushions,
- silly string aerosols,
- imitation excrement,
- horns for parties,
- decorative flakes and foams,
- artificial cobwebs,
- stink bombs.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

- CONTINUED ON NEXT PAGE -

MORAVIA - MORAZINC HB (COMPONENT A)
M.AS15-6001A

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H410: Very toxic to aquatic life with long lasting effects

H260: In contact with water releases flammable gases which may ignite spontaneously

H400: Very toxic to aquatic life

H312+H332: Harmful in contact with skin or if inhaled

H226: Flammable liquid and vapour

H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled

Acute Tox. 4: H332 - Harmful if inhaled

Aquatic Acute 1: H400 - Very toxic to aquatic life

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects

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

Eye Dam. 1: H318 - Causes serious eye damage

Eye Irrit. 2: H319 - Causes serious eye irritation

Flam. Liq. 2: H225 - Highly flammable liquid and vapour

Flam. Liq. 3: H226 - Flammable liquid and vapour

Pyr. Sol. 1: H250 - Catches fire spontaneously if exposed to air

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

STOT SE 3: H335 - May cause respiratory irritation

STOT SE 3: H336 - May cause drowsiness or dizziness

Water-react. 1: H260 - In contact with water releases flammable gases which may ignite spontaneously

Classification procedure:

Skin Irrit. 2: Calculation method

Skin Sens. 1: Calculation method

Aquatic Chronic 1: Calculation method

Aquatic Acute 1: Calculation method

Acute Tox. 4: Calculation method

Flam. Liq. 3: Calculation method (2.6.4.3)

Eye Irrit. 2: Calculation method

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

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

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

- CONTINUED ON NEXT PAGE -



Moravia
Marine Coatings

Safety data sheet

According to 1907/2006/EC (REACH), 2015/830/EU

MORAVIA - MORAZINC HB (COMPONENT A) **M.AS15-6001A**

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -