

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878



## NOVA ZINC

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : NOVA ZINC  
Registration number REACH : Not applicable (mixture)  
Product type REACH : Mixture

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

##### 1.2.1 Relevant identified uses

Metal surface treatment  
Anti-corrosion agent

##### 1.2.2 Uses advised against

No uses advised against known

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier of the safety data sheet

Novatio\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 25 76 40  
☎ +32 14 22 02 66  
info@novatio.be  
\*NOVATIO is a registered trademark of Novatech International N.V.

##### Manufacturer of the product

Novatech International N.V.  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 85 97 37  
☎ +32 14 85 97 38  
info@novatech.be

#### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :  
+32 14 58 45 45 (BIG)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.
Skin Irrit.	category 2	H315: Causes skin irritation.
Aquatic Acute	category 1	H400: Very toxic to aquatic life.
Aquatic Chronic	category 1	H410: Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements



##### Signal word

Danger

##### H-statements

H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H315 Causes skin irritation.  
H410 Very toxic to aquatic life with long lasting effects.

##### P-statements

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.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

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P280 Wear protective gloves, protective clothing and eye protection/face protection.  
 P302 + P352 IF ON SKIN: Wash with plenty of water and soap.  
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

## 2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name REACH Registration No	CAS No EC No List No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
dimethyl ether 01-2119472128-37	115-10-6 204-065-8	30%<C<50%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant	
zinc powder - zinc dust (stabilised) 01-2119467174-37	7440-66-6 231-175-3	30%<C<50%	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)	Constituent	M: 1 (Acute, ECHA (registration dossier)) M: 1 (Chronic, ECHA (registration dossier))
xylene 01-2119488216-32	1330-20-7 215-535-7	10%<C<20%	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315	(1)(2)(10)	Constituent	
hydrocarbons, C9, aromatics 01-2119455851-35	918-668-5	1%<C<10%	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411 EUH066	(1)(10)	Constituent	
n-butyl acetate 01-2119485493-29	123-86-4 204-658-1	1%≤C<10%	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
reaction mass of ethylbenzene and xylene 01-2119488216-32	905-588-0	1%<C<10%	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Asp. Tox. 1; H304 STOT RE 2; H373 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	(1)(10)	Constituent	

(1) For H- and EUH-statements in full: see section 16

(2) Substance with a Community workplace exposure limit

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

Note: numbers 9xx-xxx-x are provisional list numbers assigned by Echa pending an official EC inventory number

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

#### After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

#### After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

#### After eye contact:

Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

#### After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

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## 4.2.1 Acute symptoms

### After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Feeling of weakness. Central nervous system depression. Dizziness. Headache. Nausea. Coordination disorders. Disturbances of consciousness.

### After skin contact:

Tingling/irritation of the skin.

### After eye contact:

No effects known.

### After ingestion:

No effects known.

## 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

Small fire: Water, Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.

Major fire: Quantities of water.

### 5.2. Special hazards arising from the substance or mixture

Upon combustion: CO and CO2 are formed. Pressurised container: May burst if heated.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective goggles (EN 166). Head/neck protection. Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

#### 6.1.1 Protective equipment for non-emergency personnel

See section 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective goggles (EN 166). Head/neck protection. Protective clothing (EN 14605 or EN 13034).

#### Suitable protective clothing

See section 8.2

### 6.2. Environmental precautions

Contain released product. Dam up the liquid spill. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See section 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards. Do not discharge the waste into the drain.

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Meet the legal requirements. Keep container in a well-ventilated place. Fireproof storeroom. Provide for a tub to collect spills. Keep out of direct sunlight.

#### 7.2.2 Keep away from:

Heat sources, ignition sources, oxidizing agents.

#### 7.2.3 Suitable packaging material:

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Aerosol.

## 7.2.4 Non suitable packaging material:

No data available

## 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

#### EU

Dimethylether	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1000 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1920 mg/m <sup>3</sup>
n-Butyl acetate	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	241 mg/m <sup>3</sup>
	Short time value (Indicative occupational exposure limit value)	150 ppm
	Short time value (Indicative occupational exposure limit value)	723 mg/m <sup>3</sup>
Xylene, mixed isomers, pure	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	221 mg/m <sup>3</sup>
	Short time value (Indicative occupational exposure limit value)	100 ppm
	Short time value (Indicative occupational exposure limit value)	442 mg/m <sup>3</sup>

#### Belgium

Acétate de butyle, tous isomères: n-, iso, sec, tert	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	238 mg/m <sup>3</sup>
	Short time value	150 ppm
	Short time value	712 mg/m <sup>3</sup>
Oxyde de diméthyle	Time-weighted average exposure limit 8 h	1000 ppm
	Time-weighted average exposure limit 8 h	1920 mg/m <sup>3</sup>
Xylène, isomères mixtes, purs	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	221 mg/m <sup>3</sup>
	Short time value	100 ppm
	Short time value	442 mg/m <sup>3</sup>

#### The Netherlands

Dimethylether	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	496 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	950 mg/m <sup>3</sup>
	Short time value (Public occupational exposure limit value)	783 ppm
	Short time value (Public occupational exposure limit value)	1500 mg/m <sup>3</sup>
Xyleen, o-, m-, p-isomeren	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	48 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	210 mg/m <sup>3</sup>
	Short time value (Public occupational exposure limit value)	100 ppm
	Short time value (Public occupational exposure limit value)	442 mg/m <sup>3</sup>

#### France

Acétate de n-butyle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	150 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	710 mg/m <sup>3</sup>
	Short time value (VL: Valeur non réglementaire indicative)	200 ppm
	Short time value (VL: Valeur non réglementaire indicative)	940 mg/m <sup>3</sup>
Oxyde de diméthyle	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1000 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1920 mg/m <sup>3</sup>
Xylènes, isomères mixtes, purs	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	50 ppm

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Xylènes, isomères mixtes, purs	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	221 mg/m <sup>3</sup>
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	442 mg/m <sup>3</sup>

## Germany

Dimethylether	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1900 mg/m <sup>3</sup>
n-Butylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	62 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	300 mg/m <sup>3</sup>
Xylol (alle Isomeren)	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	220 mg/m <sup>3</sup>

## UK

Butyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	150 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	724 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	200 ppm
	Short time value (Workplace exposure limit (EH40/2005))	966 mg/m <sup>3</sup>
Dimethyl ether	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	400 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	766 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	958 mg/m <sup>3</sup>
Xylene, o-, m-, p- or mixed isomers	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	50 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	220 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	100 ppm
	Short time value (Workplace exposure limit (EH40/2005))	441 mg/m <sup>3</sup>

## USA (TLV-ACGIH)

Butyl acetates, all isomers	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
	Short time value (TLV - Adopted Value)	150 ppm
Xylene (all isomers)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	100 ppm
	Short time value (TLV - Adopted Value)	150 ppm

## b) National biological limit values

If limit values are applicable and available these will be listed below.

### Germany

Xylol (alle isomeren) (Methylhippur- (Tolur-) säure (alle isomere))	Urin: expositionsende, bzw. schichtende	2000 mg/l	
Xylol (alle isomeren) (Xylol)	Vollblut: expositionsende, bzw. schichtende	1,5 mg/l	

### UK

Xylene, o-, m-, p- or mixed isomers (methyl hippuric acid)	Urine: post shift	650 mmol/mol creatinine	
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### USA (BEI-ACGIH)

Xylenes (technical or commercial grade) (Methylhippuric acids)	Urine: end of shift	1,5 g/g creatinine	
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## 8.1.2 Sampling methods

Product name	Test	Number
Butyl acetate (Volatile Organic compounds)	NIOSH	2549
n-Butyl Acetate (Esters I)	NIOSH	1450
n-Butyl Acetate	OSHA	1009
Xylene (Hydrocarbons, aromatic)	NIOSH	1501
Xylene (Volatile Organic compounds)	NIOSH	2549
Zinc & Cpds (as Zn)	NIOSH	7030
Zinc (Elements on wipes)	NIOSH	9102
Zinc (Elements)	NIOSH	7300
Zinc (Elements, aqua regia ashing)	NIOSH	7301
Zinc (Elements, hot block/HCl/HNO <sub>3</sub> digestion)	NIOSH	7303
Zinc (Zn)	NIOSH	7306
Zinc (Zn)	NIOSH	8005
Zinc (Zn)	NIOSH	8310
Zinc	NIOSH	7030
Zinc	OSHA	1006
Zinc	OSHA	ID 105
Zinc	OSHA	ID 121

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Product name	Test	Number
Zinc	OSHA	ID 125G

### 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

### 8.1.4 Threshold values

#### DNEL/DMEL - Workers

zinc powder - zinc dust (stabilised)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	5 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	83 mg/kg bw/day	

xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	221 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	442 mg/m <sup>3</sup>	
	Long-term local effects inhalation	221 mg/m <sup>3</sup>	
	Acute local effects inhalation	442 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	212 mg/kg bw/day	

hydrocarbons, C9, aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	150 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	25 mg/kg bw/day	

n-butyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	300 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	600 mg/m <sup>3</sup>	
	Long-term local effects inhalation	300 mg/m <sup>3</sup>	
	Acute local effects inhalation	600 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	11 mg/kg bw/day	
	Acute systemic effects dermal	11 mg/kg bw/day	

reaction mass of ethylbenzene and xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	221 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	442 mg/m <sup>3</sup>	
	Long-term local effects inhalation	221 mg/m <sup>3</sup>	
	Acute local effects inhalation	442 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	212 mg/kg bw/day	

#### DNEL/DMEL - General population

zinc powder - zinc dust (stabilised)

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.5 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	83 mg/kg bw/day	
	Long-term systemic effects oral	0.83 mg/kg bw/day	

xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	65.3 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	260 mg/m <sup>3</sup>	
	Long-term local effects inhalation	65.3 mg/m <sup>3</sup>	
	Acute local effects inhalation	260 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	125 mg/kg bw/day	
	Long-term systemic effects oral	12.5 mg/kg bw/day	

hydrocarbons, C9, aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	32 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	11 mg/kg bw/day	
	Long-term systemic effects oral	11 mg/kg bw/day	

n-butyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	35.7 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	300 mg/m <sup>3</sup>	
	Long-term local effects inhalation	35.7 mg/m <sup>3</sup>	
	Acute local effects inhalation	300 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	6 mg/kg bw/day	
	Acute systemic effects dermal	6 mg/kg bw/day	
	Long-term systemic effects oral	2 mg/kg bw/day	
	Acute systemic effects oral	2 mg/kg bw/day	

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reaction mass of ethylbenzene and xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	65.3 mg/m <sup>3</sup>	
	Acute systemic effects inhalation	260 mg/m <sup>3</sup>	
	Long-term local effects inhalation	65.3 mg/m <sup>3</sup>	
	Acute local effects inhalation	260 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	125 mg/kg bw/day	
	Long-term systemic effects oral	12.5 mg/kg bw/day	

**PNEC**

zinc powder - zinc dust (stabilised)

Compartments	Value	Remark
Fresh water	20.6 µg/l	
Marine water	6.1 µg/l	
STP	100 µg/l	
Fresh water sediment	235.6 mg/kg sediment dw	
Marine water sediment	121 mg/kg sediment dw	
Soil	106.8 mg/kg soil dw	

xylene

Compartments	Value	Remark
Fresh water	0.327 mg/l	
Marine water	0.327 mg/l	
Fresh water (intermittent releases)	0.327 mg/l	
STP	6.58 mg/l	
Fresh water sediment	12.46 mg/kg sediment dw	
Marine water sediment	12.46 mg/kg sediment dw	
Soil	2.31 mg/kg soil dw	

n-butyl acetate

Compartments	Value	Remark
Fresh water	0.18 mg/l	
Marine water	0.018 mg/l	
Fresh water (intermittent releases)	0.36 mg/l	
STP	35.6 mg/l	
Fresh water sediment	0.981 mg/kg sediment dw	
Marine water sediment	0.098 mg/kg sediment dw	
Soil	0.09 mg/kg soil dw	

reaction mass of ethylbenzene and xylene

Compartments	Value	Remark
STP	1.3 mg/l	

## 8.1.5 Control banding

If applicable and available it will be listed below.

## 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

### 8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber		> 0.4 mm		Good resistance

#### c) Eye protection:

Protective goggles (EN 166).

#### d) Skin protection:

Protective clothing (EN 14605 or EN 13034). Head/neck protection.

### 8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical form	Aerosol
Odour	Characteristic odour
Odour threshold	No data available in the literature
Colour	Grey

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Particle size	Not applicable (mixture)
Explosion limits	0.6 - 18.6 vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	Not applicable (aerosol)
Kinematic viscosity	Not applicable (aerosol)
Melting point	No data available in the literature
Boiling point	No data available in the literature
Relative vapour density	> 1
Vapour pressure	4700 hPa ; 20 °C ; Liquid
Solubility	Water ; insoluble
Relative density	1.08 ; 20 °C ; Liquid
Absolute density	1080 kg/m <sup>3</sup> ; 20 °C ; Liquid
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
pH	Not applicable (non-soluble in water)

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

#### Precautionary measures

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

### 10.5. Incompatible materials

Oxidizing agents.

### 10.6. Hazardous decomposition products

Upon combustion: CO and CO<sub>2</sub> are formed.

## SECTION 11: Toxicological information

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

#### 11.1.1 Test results

#### Acute toxicity

##### NOVA ZINC

No (test)data on the mixture available

Judgement is based on the relevant ingredients  
zinc powder - zinc dust (stabilised)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 2000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal						Data waiving	
Inhalation (dust)	LD50	OECD 403	> 5.41 mg/l air	4 h	Rat (male / female)	Experimental value	

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## xylene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to EU Method B.1	> 4000 mg/kg bw		Rat (female)	Experimental value	
Oral	LD50	Equivalent to EU Method B.1	3523 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50		> 4200 mg/kg bw	4 h	Rabbit (male)	Experimental value	
Dermal			category 4			Annex VI	
Inhalation (vapours)	LC50	Equivalent to EU Method B.2	29.09 mg/l	4 h	Rat (male)	Experimental value	
Inhalation (vapours)			category 4			Annex VI	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

## hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		> 6984 mg/kg bw		Rat (male)	Experimental value	
Oral	LD50		3492 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 3160 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 6.193 mg/l air	4 h	Rat (male / female)	Experimental value	

## n-butyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 423	10760 mg/kg bw - 12789 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 14112 mg/kg bw		Rabbit (male / female)	Experimental value	
Inhalation (aerosol)	LC50	OECD 403	0.74 mg/l	4 h	Rat (male / female)	Experimental value	

## reaction mass of ethylbenzene and xylene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to EU Method B.1	3523 mg/kg bw		Rat (male)	Experimental value	
Oral	LD50	Equivalent to EU Method B.1	> 4000 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50		> 5000 mg/kg bw	4 h	Rabbit (male)	Weight of evidence	
Dermal			category 4			Literature study	
Inhalation (vapours)	LC50	Equivalent to EU Method B.2	29.09 mg/l	4 h	Rat (male)	Experimental value	
Inhalation (vapours)			category 4			Literature study	

## Conclusion

Not classified for acute toxicity

## Corrosion/irritation

### NOVA ZINC

No (test) data on the mixture available

Classification is based on the relevant ingredients

### zinc powder - zinc dust (stabilised)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405	24 h	24; 72 hours	Rabbit	Experimental value	
Skin	Not irritating		5 day(s)		Rabbit	Read-across	
Inhalation	Not irritating	Human observation			Human	Read-across	

## xylene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Moderately irritating	Draize Test		24; 48; 72 hours	Rabbit	Experimental value	
Skin	Moderately irritating	Draize Skin Test	4 h	24; 72 hours	Rabbit	Experimental value	
Inhalation (vapours)	Irritating		4 h		Human		

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

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# NOVA ZINC

## hydrocarbons, C9, aromatics

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	
Skin	Slightly irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Inhalation (vapours)	Irritating; STOT SE cat.3					Literature study	

## n-butyl acetate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Dermal	Not irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

## reaction mass of ethylbenzene and xylene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating		72 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Irritating		24 h	24; 72 hours	Rabbit	Weight of evidence	
Inhalation	Irritating; STOT SE cat.3						

### **Conclusion**

Causes skin irritation.  
 Not classified as irritating to the eyes  
 Not classified as irritating to the respiratory system

### **Respiratory or skin sensitisation**

#### NOVA ZINC

No (test)data on the mixture available  
 Judgement is based on the relevant ingredients  
zinc powder - zinc dust (stabilised)

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Read-across	

#### xylene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse	Experimental value	

## hydrocarbons, C9, aromatics

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	

## n-butyl acetate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406			Guinea pig	Experimental value	

## reaction mass of ethylbenzene and xylene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse	Experimental value	

### **Conclusion**

Not classified as sensitizing for skin  
 Not classified as sensitizing for inhalation

### **Specific target organ toxicity**

#### NOVA ZINC

No (test)data on the mixture available  
 Judgement is based on the relevant ingredients

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# NOVA ZINC

## zinc powder - zinc dust (stabilised)

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 408	31.52 mg/kg bw/day		No effect	13 weeks (daily)	Rat (male / female)	Read-across
Oral (diet)	LOAEL	OECD 408	53.8 mg/kg bw/day	Blood	Change in the haemogramme/blood composition	13 weeks (daily)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation (aerosol)	Dose level		0.1 mg/m <sup>3</sup>		No effect	16 weeks (6h / day, 5 days / week)	Rat (male)	Read-across

## xylene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	LOAEL	Equivalent to OECD 408	150 mg/kg bw/day	Liver	Weight gain	90 days (1x / day)	Rat (male)	Experimental value
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	150 mg/kg bw/day	Liver; kidney	No effect	90 days (1x / day)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC	Subchronic toxicity test	≥ 3515 mg/m <sup>3</sup>		No effect	13 weeks (6h / day, 5 days / week)	Rat (male)	Experimental value

## hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	600 mg/kg bw/day		No effect	13 weeks (daily)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 452	1800 mg/m <sup>3</sup> air		No effect	52 weeks (6h / day, 5 days / week)	Rat (male)	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 452	900 mg/m <sup>3</sup> air		No effect	52 weeks (6h / day, 5 days / week)	Rat (female)	Read-across
Inhalation (vapours)			STOT SE cat.3		Drowsiness, dizziness			Literature study

## n-butyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Subchronic toxicity test	125 mg/kg bw/day		No effect	13 week(s)	Rat (male / female)	Read-across
Oral (stomach tube)	LOAEL	Subchronic toxicity test	500 mg/kg bw/day	Central nervous system	Central nervous system depression	13 day(s)	Rat (male / female)	Read-across
Inhalation (vapours)	NOAEC	EPA OTS 798.2450	500 ppm		No adverse systemic effects	13 weeks (daily, 5 days / week)	Rat (male / female)	Experimental value

## reaction mass of ethylbenzene and xylene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	150 mg/kg bw/day			90 day(s)	Rat (female)	Experimental value
Oral (stomach tube)	LOAEL	Equivalent to OECD 408	150 mg/kg bw/day	Liver	Weight gain	90 day(s)	Rat (male)	Experimental value
Inhalation (vapours)	NOAEC	Subchronic toxicity test	3515 mg/m <sup>3</sup>		No effect	13 weeks (6h / day, 5 days / week)	Rat (male)	Experimental value

## **Conclusion**

Not classified for subchronic toxicity

## **Mutagenicity (in vitro)**

### NOVA ZINC

No (test)data on the mixture available

Judgement is based on the relevant ingredients

### zinc powder - zinc dust (stabilised)

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Read-across	

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# NOVA ZINC

## xylene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to EU Method B.10	Chinese hamster ovary (CHO)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to EU Method B.19	Chinese hamster ovary (CHO)		Experimental value	

## hydrocarbons, C9, aromatics

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

## n-butyl acetate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

## reaction mass of ethylbenzene and xylene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to EU Method B.19	Chinese hamster ovary (CHO)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to EU Method B.10	Chinese hamster ovary (CHO)		Experimental value	

## **Mutagenicity (in vivo)**

### NOVA ZINC

No (test)data on the mixture available

Judgement is based on the relevant ingredients

### zinc powder - zinc dust (stabilised)

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)	Micronucleus test	2 dose(s)/24-hour interval	Mouse (male / female)		Read-across

## xylene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Subcutaneous)	Equivalent to OECD 478		Mouse (male / female)		Experimental value

## hydrocarbons, C9, aromatics

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	Equivalent to OECD 475	5 days (6h / day)	Rat (male)	Bone marrow	Experimental value

## n-butyl acetate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male / female)		Read-across

## reaction mass of ethylbenzene and xylene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Subcutaneous)	Equivalent to OECD 478		Mouse (male / female)		Experimental value

## **Conclusion**

Not classified for mutagenic or genotoxic toxicity

## **Carcinogenicity**

### NOVA ZINC

No (test)data on the mixture available

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# NOVA ZINC

Judgement is based on the relevant ingredients  
zinc powder - zinc dust (stabilised)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 22000 mg/l	52 weeks (daily)	Mouse (male / female)	No carcinogenic effect		Read-across

## xylene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (stomach tube)	Dose level	Equivalent to EU Method B.32	500 mg/kg bw/day	103 weeks (5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

## hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown								Data waiving

## reaction mass of ethylbenzene and xylene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (stomach tube)	Dose level	Equivalent to EU Method B.32	500 mg/kg bw/day	103 weeks (3 times / week)	Rat (male / female)	No carcinogenic effect		Experimental value

## Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### NOVA ZINC

No (test) data on the mixture available

Judgement is based on the relevant ingredients  
zinc powder - zinc dust (stabilised)

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Developmental toxicity study	42.5 mg/kg bw/day	10 day(s)	Rat	No effect		Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	Developmental toxicity study	42.5 mg/kg bw/day	10 day(s)	Rat	No effect		Read-across
Effects on fertility (Oral (stomach tube))	LOAEL	Equivalent to OECD 416	7.5 mg/kg bw/day		Rat (male / female)	Reproductive performance		Read-across

## xylene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	BMCL10	Equivalent to OECD 414	1094 ppm	15 days (6h / day)	Rat (male / female)	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	BMCL10	OECD 414	780 ppm	15 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC (P)	EPA OPPTS 870.3800	≥ 500 ppm	70 days (6h / day)	Rat (male / female)	No effect		Read-across

## hydrocarbons, C9, aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Developmental toxicity study	100 ppm	10 days (6h / day)	Mouse	No effect		Experimental value
	LOAEC	Developmental toxicity study	500 ppm	10 days (6h / day)	Mouse	Reduced foetal bodyweights	Foetus	Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEC	Developmental toxicity study	100 ppm	10 day(s)	Mouse	No effect		Experimental value
	LOAEC	Developmental toxicity study	500 ppm	10 day(s)	Mouse	Body weight reduction	General	Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC	3 generation study	7500 mg/m <sup>3</sup>		Rat (male / female)	No effect		Experimental value

## n-butyl acetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	LOAEC	Equivalent to OECD 414	1500 ppm		Rat	Fetotoxicity		Experimental value
Maternal toxicity (Inhalation (vapours))	LOAEC	Equivalent to OECD 414	1500 ppm		Rat	Maternal toxicity		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC	OECD 416	2000 ppm	> 90 day(s)	Rat (male / female)	No effect		Experimental value

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# NOVA ZINC

## reaction mass of ethylbenzene and xylene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	BMCL10	Equivalent to OECD 414	4698 mg/m <sup>3</sup> air	15 days (6h / day)	Rat	Degeneration of heart tissue		Experimental value
Maternal toxicity (Inhalation (vapours))	BMCL10	Equivalent to OECD 414	887 ppm	15 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC		500 ppm		Rat (male / female)	Degeneration of heart tissue		Experimental value

### Conclusion

Not classified for reprotoxic or developmental toxicity

### Toxicity other effects

#### NOVA ZINC

##### hydrocarbons, C9, aromatics

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
			Skin	Skin dryness or cracking			Literature study

##### n-butyl acetate

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
NOEC	EPA OTS 798.6050	1500 ppm		Hypoactivity	6 h	Rat (male / female)	Experimental value
NOAEC	EPA OTS 798.6050	500 ppm		no neurotoxic effects	13 week(s)	Rat (male / female)	Experimental value

### Chronic effects from short and long-term exposure

#### NOVA ZINC

Impairment of the nervous system.

### 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

#### NOVA ZINC

No (test) data on the mixture available

Classification is based on the relevant ingredients

##### zinc powder - zinc dust (stabilised)

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Other	0.169 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Read-across; Zinc ion
Acute toxicity crustacea	EC50	OECD 202	416 µg/l	48 h	Ceriodaphnia dubia	Static system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	IC50	OECD 201	0.150 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; Zinc ion
	NOEC	OECD 201	0.050 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; Zinc ion
Long-term toxicity fish	NOEC	US EPA	85 µg/l	7 day(s)	Pimephales promelas	Semi-static system	Fresh water	Experimental value; Lethal
Long-term toxicity aquatic crustacea	NOEC	US EPA	0.025 mg/l - 0.050 mg/l	1 week(s)	Ceriodaphnia dubia	Semi-static system	Fresh water	Experimental value; Zinc ion
Toxicity aquatic micro-organisms	LC50	ISO 9509:2006	0.35 mg/l	4 h	Activated sludge	Static system	Fresh water	Read-across; Nominal concentration

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# NOVA ZINC

## xylene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	2.6 mg/l	96 h	Oncorhynchus mykiss	Static renewal	Fresh water	Read-across; Lethal
Acute toxicity crustacea	IC50	OECD 202	2.2 mg/l	24 h	Daphnia magna	Static system	Fresh water	Read-across; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	4.36 mg/l	73 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	EC10	OECD 201	1.9 mg/l	73 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC		> 1.3 mg/l	56 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Read-across; Lethal
Long-term toxicity aquatic crustacea	NOEC	OECD 211	1.57 mg/l	21 day(s)	Daphnia magna	Static renewal	Fresh water	Read-across; GLP

## hydrocarbons, C9, aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	10 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	3.2 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EL50	OECD 201	2.9 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	0.07 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOELR		1.228 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR
Long-term toxicity aquatic crustacea	NOELR		2.144 mg/l	21 day(s)	Daphnia magna		Fresh water	QSAR

## n-butyl acetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	18 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	Equivalent to OECD 202	44 mg/l	48 h	Daphnia sp.	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	397 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; GLP
	NOEC	OECD 201	196 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	23.2 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Read-across; Reproduction
Toxicity aquatic micro-organisms	IC50	TETRATOX assay	356 mg/l	40 h	Tetrahymena pyriformis	Static system	Fresh water	Experimental value; Growth

  

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity terrestrial plants	EC50	Equivalent to OECD 208	> 1000 mg/kg soil dw	14 day(s)	Lactuca sativa	Experimental value

## Conclusion

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

## 12.2. Persistence and degradability

### xylene

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	98 %; Oxygen consumption	28 day(s)	Experimental value

#### Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	23.2 h	5E5 /cm <sup>3</sup>	Read-across

### hydrocarbons, C9, aromatics

#### Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	78 %	28 day(s)	Experimental value

# NOVA ZINC

n-butyl acetate

## Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	83 %; Oxygen consumption	28 day(s)	Experimental value

reaction mass of ethylbenzene and xylene

## Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	98 %; GLP	28 day(s)	Experimental value

## Conclusion

### Water

Contains non readily biodegradable component(s)

## 12.3. Bioaccumulative potential

NOVA ZINC

### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

zinc powder - zinc dust (stabilised)

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		0.002	40 day(s)	Danio rerio	Read-across

### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (inorganic)			

xylene

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		7.2 - 25.9	56 day(s)	Oncorhynchus mykiss	Read-across

### Log Kow

Method	Remark	Value	Temperature	Value determination
		3.2	20 °C	Read-across

hydrocarbons, C9, aromatics

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	39.8 l/kg - 177.8 l/kg; Fresh weight		Pisces	QSAR

### Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		2.92 - 3.59	20 °C	QSAR

n-butyl acetate

### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		2.3	25 °C	Experimental value

reaction mass of ethylbenzene and xylene

### BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		5.5 - 25.9	56 day(s)	Oncorhynchus mykiss	Read-across

### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		3.49	30 °C	Experimental value

## Conclusion

Does not contain bioaccumulative component(s)

## 12.4. Mobility in soil

xylene

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	Equivalent to OECD 121	2.73	Read-across

hydrocarbons, C9, aromatics

### (log) Koc

Parameter	Method	Value	Value determination
log Koc		2.68	QSAR

n-butyl acetate

### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1.268 - 1.844	Calculated value

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reaction mass of ethylbenzene and xylene

(log) Koc

Parameter	Method	Value	Value determination
log Koc	Equivalent to OECD 121	2.73	Read-across

## Conclusion

Contains component(s) with potential for mobility in the soil  
Contains component(s) that adsorb(s) into the soil

## 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

## 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

## 12.7. Other adverse effects

### NOVA ZINC

#### Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

#### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

#### Groundwater

Groundwater pollutant

xylene

#### Groundwater

Groundwater pollutant

hydrocarbons, C9, aromatics

#### Groundwater

Groundwater pollutant

n-butyl acetate

#### Groundwater

Groundwater pollutant

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

11 01 98\* (wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); other wastes containing hazardous substances).

Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste.

Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Should not be landfilled with household waste. Specific treatment. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

#### 13.1.3 Packaging/Container

##### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR)

#### 14.1. UN number

UN number	1950
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#### 14.2. UN proper shipping name

Proper shipping name	aerosols
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#### 14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5F

#### 14.4. Packing group

Packing group	
Labels	2.1

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## 14.5. Environmental hazards

Environmentally hazardous substance mark	yes
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## 14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

### Rail (RID)

#### 14.1. UN number

UN number	1950
-----------	------

#### 14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

#### 14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	5F

#### 14.4. Packing group

Packing group	
Labels	2.1

## 14.5. Environmental hazards

Environmentally hazardous substance mark	yes
--	-----

## 14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

### Inland waterways (ADN)

#### 14.1. UN number

UN number	1950
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#### 14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

#### 14.3. Transport hazard class(es)

Class	2
Classification code	5F

#### 14.4. Packing group

Packing group	
Labels	2.1

## 14.5. Environmental hazards

Environmentally hazardous substance mark	yes
--	-----

## 14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

### Sea (IMDG/IMSBC)

#### 14.1. UN number

UN number	1950
-----------	------

#### 14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

#### 14.3. Transport hazard class(es)

Class	2.1
-------	-----

#### 14.4. Packing group

Packing group	
Labels	2.1

## 14.5. Environmental hazards

Marine pollutant	P
Environmentally hazardous substance mark	yes

## 14.6. Special precautions for user

Special provisions	190
Special provisions	277
Special provisions	327
Special provisions	344

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Special provisions	381
Special provisions	63
Special provisions	959
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

#### 14.7. Maritime transport in bulk according to IMO instruments

Annex II of MARPOL 73/78	Not applicable
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#### Air (ICAO-TI/IATA-DGR)

##### 14.1. UN number

UN number	1950
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##### 14.2. UN proper shipping name

Proper shipping name	aerosols, flammable
----------------------	---------------------

##### 14.3. Transport hazard class(es)

Class	2.1
-------	-----

##### 14.4. Packing group

Packing group	
Labels	2.1

##### 14.5. Environmental hazards

Environmentally hazardous substance mark	yes
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##### 14.6. Special precautions for user

Special provisions	A145
Special provisions	A167
Special provisions	A802

##### Passenger and cargo transport

Limited quantities: maximum net quantity per packaging	30 kg G
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## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
61.03 %	

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC and 2009/161/EU)

xylene

Product name	Skin resorption
Xylene, mixed isomers, pure	Skin

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
<ul style="list-style-type: none"> <li>· xylene</li> <li>· hydrocarbons, C9, aromatics</li> <li>· n-butyl acetate</li> <li>· reaction mass of ethylbenzene and xylene</li> </ul>	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. 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, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage"; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
<ul style="list-style-type: none"> <li>· xylene</li> <li>· hydrocarbons, C9, aromatics</li> </ul>	Substances classified as flammable gases category 1 or 2, flammable liquids categories	1. 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

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<ul style="list-style-type: none"> <li>n-butyl acetate</li> <li>reaction mass of ethylbenzene and xylene</li> </ul>	<p>1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.</p>	<p>decorative purposes such as the following:</p> <ul style="list-style-type: none"> <li>metallic glitter intended mainly for decoration,</li> <li>artificial snow and frost,</li> <li>“whoopee” cushions,</li> <li>silly string aerosols,</li> <li>imitation excrement,</li> <li>horns for parties,</li> <li>decorative flakes and foams,</li> <li>artificial cobwebs,</li> <li>stink bombs.</li> </ul> <p>2. 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”.</p> <p>3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.</p> <p>4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.</p>
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## National legislation Belgium

### NOVA ZINC

No data available

#### xylene

Résorption peau	Xylène, isomères mixtes, purs; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.
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## National legislation The Netherlands

### NOVA ZINC

Waterbezwaarlijkheid	A (1); Algemene Beoordelingsmethodiek (ABM)
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#### xylene

Huidopname (wettelijk)	Xyleen, o-, m-, p-isomeren; H
SZW - Lijst van voor de voortplanting giftige stoffen (ontwikkeling)	xyleen; Opgenomen in SZW-lijst van voor de voortplanting giftige stoffen (ontwikkeling); 2

## National legislation France

### NOVA ZINC

No data available

#### xylene

Risque de pénétration percutanée	Xylènes, isomères mixtes, purs; Risquedepénétrationpercutanée
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## National legislation Germany

### NOVA ZINC

WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
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#### zinc powder - zinc dust (stabilised)

TA-Luft	5.2.1
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#### xylene

TA-Luft	5.2.5/I
Hautresorptive Stoffe	Xylol (alle Isomeren); H; Hautresorptiv

#### hydrocarbons, C9, aromatics

TA-Luft	5.2.5/I
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#### n-butyl acetate

TA-Luft	5.2.5/I
---------	---------

TRGS900 - Risiko der Fruchtschädigung	n-Butylacetat; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
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#### reaction mass of ethylbenzene and xylene

TA-Luft	5.2.5/I
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## National legislation United Kingdom

### NOVA ZINC

No data available

#### xylene

Skin absorption	Xylene, o-,m-,p- or mixed isomers; Sk
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## Other relevant data

### NOVA ZINC

No data available

#### xylene

IARC - classification	3; Xylenes
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TLV - Carcinogen	Xylene (all isomers); A4
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## 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

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## SECTION 16: Other information

### Full text of any H- and EUH-statements referred to under section 3:

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H226 Flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- 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 (ears (hearing damage)) 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.
- EUH066 Repeated exposure may cause skin dryness or cracking.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.