



Safety Data Sheet according to (EC) No 1907/2006 as amended

Page 1 of 33

POLYZINC

SDS No. : 558645
V003.2

Revision: 26.06.2025
printing date: 07.02.2026

Replaces version from: 14.05.2025

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

1.1. Product identifier

POLYZINC

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

Intended use:

Paints and coatings

1.3. Details of the supplier of the safety data sheet

Henkel Jebal Ali FZCO
PO Box 61341 - Jebel Ali
Dubai

Utd.Arab.Emir.

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.

1.4. Emergency telephone number

HAAD Poison and Drug Information Center UAE, TOLL FREE TEL. NUMBER 800-424

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Flammable liquids	Category 3
H226 Flammable liquid and vapour.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central nervous system	
Carcinogenicity	Category 2
H351 Suspected of causing cancer.	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 1
H410 Very toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

Xylene - mixture of isomeres

4-methylpentan-2-one

butan-1-ol

ethylbenzene

Signal word:

Danger

Hazard statement:

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Precautionary statement: Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P260 Do not breathe mist/vapours.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection.

Precautionary statement: Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.

Precautionary statement: Storage

P405 Store locked up.

Precautionary statement: Disposal

P501 Dispose of contents/container in accordance with national regulation.

2.3. Other hazards

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.

Pregnant women should absolutely avoid inhalation and skin contact.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg. No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Zinc powder - zinc dust (stabilised) 7440-66-6 231-175-3 01-2119467174-37	40- < 60 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	
Xylene - mixture of isomeres 1330-20-7 215-535-7 01-2119488216-32	10- < 20 %	Asp. Tox. 1, H304 Acute Tox. 4, Inhalation, H332 Acute Tox. 4, Dermal, H312 Skin Irrit. 2, H315 Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412	dermal:ATE = 1.700 mg/kg oral:ATE = 3.523 mg/kg inhalation:ATE = 11 mg/l;vapour	EU OEL
4-methylpentan-2-one 108-10-1 203-550-1 01-2119473980-30	5- < 10 %	Acute Tox. 4, Inhalation, H332 Carc. 2, H351 Flam. Liq. 2, H225 STOT SE 3, H336 Eye Irrit. 2, H319	inhalation:ATE = 11 mg/l;vapour	EU OEL
butan-1-ol 71-36-3 200-751-6 01-2119484630-38	5- < 10 %	Flam. Liq. 3, H226 Acute Tox. 4, Oral, H302 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336		
Butanone 78-93-3 201-159-0 01-2119457290-43	1- < 5 %	STOT SE 3, H336 Eye Irrit. 2, H319 Flam. Liq. 2, H225		EU OEL
ethylbenzene 100-41-4 202-849-4 01-2119489370-35	1- < 5 %	Flam. Liq. 2, H225 Acute Tox. 4, Inhalation, H332 Asp. Tox. 1, H304 STOT RE 2, H373 Aquatic Chronic 3, H412 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336	dermal:ATE = 15.433 mg/kg oral:ATE = 3.500 mg/kg inhalation:ATE = 17,4 mg/l;vapour	EU OEL
zinc oxide 1314-13-2 215-222-5 01-2119463881-32	1- < 5 %	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 1	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.

For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, do not induce vomiting, consult a doctor.

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

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

SKIN: Redness, inflammation.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

Vapors may cause drowsiness and dizziness.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO₂) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

Additional information:

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Danger of slipping on spilled product.

Ensure adequate ventilation.

Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ventilate working rooms thoroughly. Avoid naked flames, sparking and sources of ignition. Switch off electrical devices. Do not smoke, do not weld. Do not empty waste into waste water drains.

During processing and drying after adhesion, ventilate well. Avoid all sources of fire such as stoves and ovens. Switch off all electrical devices such as parabolic heaters, hot plates, storage heaters etc. in good time for them to have cooled down before commencing work. Avoid all sparks, including those occurring at electrical switches and devices.

Avoid skin and eye contact.

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Storage at 5 to 25°C is recommended.

Keep container tightly sealed.

Store in a cool place.

Keep away from heat and direct sunlight.

Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Paints and coatings

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Utd.Arab.Emir.

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE (O, M & P ISOMERS)]	100	434	Time Weighted Average (TWA):		AD TLV
Xylene 1330-20-7 [XYLENE (O, M & P ISOMERS)]	150	651	Short Term Exposure Limit (STEL):		AD TLV
Xylene 1330-20-7 [XYLENE (ISOMERS)]	150		Short Term Exposure Limit (STEL):		DB OEL
Xylene 1330-20-7 [XYLENE (ISOMERS)]	100		Time Weighted Average (TWA):		DB OEL
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	100	434	Time Weighted Average (TWA):		GCC TLV
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	150	651	Short Term Exposure Limit (STEL):		GCC TLV
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	100	434	Time Weighted Average (TWA):		UAE OEL
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	150	651	Short Term Exposure Limit (STEL):		UAE OEL
4-Methylpentan-2-one 108-10-1 [HEXONE [METHYL ISOBUTYL KETONE] METHYL ISOBUTYL KETONE [HEXONE]]	75	307	Short Term Exposure Limit (STEL):		AD TLV
4-Methylpentan-2-one 108-10-1 [HEXONE [METHYL ISOBUTYL KETONE] METHYL ISOBUTYL KETONE [HEXONE]]	20	82	Time Weighted Average (TWA):		AD TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	50	205	Time Weighted Average (TWA):		GCC TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	75	307	Short Term Exposure Limit (STEL):		GCC TLV
4-Methylpentan-2-one 108-10-1 [HEXONE]	75	307	Short Term Exposure Limit (STEL):		UAE OEL
4-Methylpentan-2-one 108-10-1 [HEXONE]	50	205	Time Weighted Average (TWA):		UAE OEL
Butan-1-ol 71-36-3 [N-BUTANOL [BUTANE-1-OL]]	20	61	Time Weighted Average (TWA):		AD TLV
Butan-1-ol 71-36-3 [N-BUTANOL [BUTANE-1-OL]]	50	152	Short Term Exposure Limit (STEL):		AD TLV
Butan-1-ol 71-36-3 [BUTAN-1-OL]	50	152	Ceiling Limit Value:		GCC TLV
Butan-1-ol 71-36-3			Skin designation:	Can be absorbed through the skin.	GCC TLV

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 8 of 33

[BUTAN-1-OL]					
Butan-1-ol 71-36-3 [BUTAN-1-OL]	50	152	Ceiling Limit Value:		UAE OEL
Butan-1-ol 71-36-3 [BUTAN-1-OL]			Skin designation:	Can be absorbed through the skin.	UAE OEL
Butanone 78-93-3 [2-BUTANONE [METHYL ETHYL KETONE (MEK)]]	200	590	Time Weighted Average (TWA):		AD TLV
Butanone 78-93-3 [2-BUTANONE [METHYL ETHYL KETONE (MEK)]]	300	885	Short Term Exposure Limit (STEL):		AD TLV
Butanone 78-93-3 [2-BUTANONE]	200	590	Time Weighted Average (TWA):		GCC TLV
Butanone 78-93-3 [2-BUTANONE]	300	885	Short Term Exposure Limit (STEL):		GCC TLV
Butanone 78-93-3 [2-BUTANONE]	200	590	Time Weighted Average (TWA):		UAE OEL
Butanone 78-93-3 [2-BUTANONE]	300	885	Short Term Exposure Limit (STEL):		UAE OEL
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	543	Short Term Exposure Limit (STEL):		AD TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	100	434	Time Weighted Average (TWA):		AD TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	543	Short Term Exposure Limit (STEL):		GCC TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	100	434	Time Weighted Average (TWA):		GCC TLV
Ethylbenzene 100-41-4 [ETHYLBENZENE]	100	434	Time Weighted Average (TWA):		UAE OEL
Ethylbenzene 100-41-4 [ETHYLBENZENE]	125	543	Short Term Exposure Limit (STEL):		UAE OEL
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME, RESPIRABLE FRACTION]		10	Short Term Exposure Limit (STEL):		AD TLV
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME, RESPIRABLE FRACTION]		2	Time Weighted Average (TWA):		AD TLV
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		5	Time Weighted Average (TWA):		GCC TLV
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		10	Short Term Exposure Limit (STEL):		GCC TLV
Zinc oxide 1314-13-2 [ZINC OXIDE (FUMES)]		5	Time Weighted Average (TWA):		UAE OEL
Zinc oxide 1314-13-2 [ZINC OXIDE (FUMES)]		10	Short Term Exposure Limit (STEL):		UAE OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUME]		5	Time Weighted Average (TWA):		DB OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUME]		10	Short Term Exposure Limit (STEL):		DB OEL

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 9 of 33

Occupational Exposure Limits

Valid for
Bharain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	100	434	Time Weighted Average (TWA):		BH TLV
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	150	651	Short Term Exposure Limit (STEL):		BH TLV
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	100	434	Time Weighted Average (TWA):		GCC TLV
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	150	651	Short Term Exposure Limit (STEL):		GCC TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	50	205	Time Weighted Average (TWA):		GCC TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	75	307	Short Term Exposure Limit (STEL):		GCC TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	50	205	Time Weighted Average (TWA):		BH TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	75	307	Short Term Exposure Limit (STEL):		BH TLV
Butan-1-ol 71-36-3 [BUTANOL]			Skin designation:	Can be absorbed through the skin.	BH TLV
Butan-1-ol 71-36-3 [BUTANOL]	50	152	Ceiling Limit Value (CLV):		BH TLV
Butan-1-ol 71-36-3 [BUTAN-1-OL]	50	152	Ceiling Limit Value:		GCC TLV
Butan-1-ol 71-36-3 [BUTAN-1-OL]			Skin designation:	Can be absorbed through the skin.	GCC TLV
Butanone 78-93-3 [2-BUTANONE]	200	590	Time Weighted Average (TWA):		BH TLV
Butanone 78-93-3 [2-BUTANONE]	300	885	Short Term Exposure Limit (STEL):		BH TLV
Butanone 78-93-3 [2-BUTANONE]	200	590	Time Weighted Average (TWA):		GCC TLV
Butanone 78-93-3 [2-BUTANONE]	300	885	Short Term Exposure Limit (STEL):		GCC TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	543	Short Term Exposure Limit (STEL):		BH TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	100	434	Time Weighted Average (TWA):		BH TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	543	Short Term Exposure Limit (STEL):		GCC TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	100	434	Time Weighted Average (TWA):		GCC TLV
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		5	Time Weighted Average (TWA):		GCC TLV
Zinc oxide		10	Short Term Exposure		GCC TLV

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 10 of 33

1314-13-2 [ZINC OXIDE FUMES]			Limit (STEL):		
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		10	Short Term Exposure Limit (STEL):		BH TLV
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		5	Time Weighted Average (TWA):		BH TLV

Occupational Exposure Limits

Valid for
Egypt

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE (O, M, P ISOMERS)]	100	434	Time Weighted Average (TWA):		EG OEL
Xylene 1330-20-7 [XYLENE (O, M, P ISOMERS)]	150	751	Short-term Exposure Limit (STEL):		EG OEL
Butan-1-ol 71-36-3 [N-BUTYL ALCOHOL]			Skin designation:	Can be absorbed through the skin.	EG OEL
Butan-1-ol 71-36-3 [N-BUTYL ALCOHOL]	50	152	Ceiling Limit Value:		EG OEL
Butanone 78-93-3 [METHYL ETHYL KETONE]	200	590	Time Weighted Average (TWA):		EG OEL
Butanone 78-93-3 [METHYL ETHYL KETONE]	300	885	Short-term Exposure Limit (STEL):		EG OEL
Ethylbenzene 100-41-4 [ETHYLBENZENE]	125	543	Short-term Exposure Limit (STEL):		EG OEL
Ethylbenzene 100-41-4 [ETHYLBENZENE]	100	434	Time Weighted Average (TWA):		EG OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUME]		10	Short-term Exposure Limit (STEL):		EG OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUME]		5	Time Weighted Average (TWA):		EG OEL
Zinc oxide 1314-13-2 [ZINC OXIDE DUST]		10	Time Weighted Average (TWA):		EG OEL

Occupational Exposure Limits

Valid for
Jordan

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE]	100	425	Time Weighted Average (TWA):		JO TLV
Xylene 1330-20-7 [XYLENE]	150	655	Short Term Exposure Limit (STEL):		JO TLV
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	75	300	Short Term Exposure Limit (STEL):		JO TLV
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	50	205	Time Weighted Average (TWA):		JO TLV

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 11 of 33

Butan-1-ol 71-36-3 [BUTYL ALCOHOL (REGULAR)]	50	150	Time Weighted Average (TWA):		JO TLV
Butan-1-ol 71-36-3 [BUTYL ALCOHOL (REGULAR)]	50	150	Short Term Exposure Limit (STEL):		JO TLV
Butanone 78-93-3 [METHYL ETHYL KETONE]	300	885	Short Term Exposure Limit (STEL):		JO TLV
Butanone 78-93-3 [METHYL ETHYL KETONE]	200	590	Time Weighted Average (TWA):		JO TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	100	435	Time Weighted Average (TWA):		JO TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	545	Short Term Exposure Limit (STEL):		JO TLV
Zinc oxide 1314-13-2 [ZINC OXIDE (FUMES)]		5	Time Weighted Average (TWA):		JO TLV
Zinc oxide 1314-13-2 [ZINC OXIDE (FUMES)]		10	Short Term Exposure Limit (STEL):		JO TLV

Occupational Exposure Limits

Valid for
Kuwait

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	100	434	Time Weighted Average (TWA):		GCC TLV
Xylene 1330-20-7 [XYLENE (ALL ISOMERS)]	150	651	Short Term Exposure Limit (STEL):		GCC TLV
Xylene 1330-20-7 [XYLENE]	100	435	Time Weighted Average (TWA):		KW OEL
Xylene 1330-20-7 [XYLENE]	150	655	Short-term Exposure Limit (STEL):		KW OEL
Xylene 1330-20-7 [XYLENE]	900		Harmful Concentration for risk to health and life:		KW OEL
4-Methylpentan-2-one 108-10-1 [HEXANOE]	50	205	Time Weighted Average (TWA):		GCC TLV
4-Methylpentan-2-one 108-10-1 [HEXANOE]	75	307	Short Term Exposure Limit (STEL):		GCC TLV
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	500		Harmful Concentration for risk to health and life:		KW OEL
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	50	205	Time Weighted Average (TWA):		KW OEL
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	75	300	Short-term Exposure Limit (STEL):		KW OEL
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	543	Short Term Exposure Limit (STEL):		GCC TLV
Ethylbenzene 100-41-4 [ETHYL BENZENE]	100	434	Time Weighted Average (TWA):		GCC TLV
Ethylbenzene 100-41-4	100	435	Time Weighted Average (TWA):		KW OEL

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 12 of 33

[ETHYL BENZENE]					
Ethylbenzene 100-41-4 [ETHYL BENZENE]	125	545	Short-term Exposure Limit (STEL):		KW OEL
Ethylbenzene 100-41-4 [ETHYL BENZENE]	300		Harmful Concentration for risk to health and life:		KW OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		5	Time Weighted Average (TWA):		GCC TLV
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		10	Short Term Exposure Limit (STEL):		GCC TLV
Zinc oxide 1314-13-2 [ZINC OXIDE DUST]		500	Harmful Concentration for risk to health and life:		KW OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		500	Harmful Concentration for risk to health and life:		KW OEL
Zinc oxide 1314-13-2 [ZINC OXIDE DUST]		10	Time Weighted Average (TWA):		KW OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		5	Time Weighted Average (TWA):		KW OEL
Zinc oxide 1314-13-2 [ZINC OXIDE FUMES]		10	Short-term Exposure Limit (STEL):		KW OEL
Zinc oxide 1314-13-2 [ZINC OXIDE DUST]		10	Short-term Exposure Limit (STEL):		KW OEL

Occupational Exposure Limits

Valid for
Israel

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE (XYLOLE) AND XYLENE COMPOUNDS]	50		Action level (AL):		IL OEL
Xylene 1330-20-7 [XYLENE (XYLOLE) AND XYLENE COMPOUNDS]	150		Short-term exposure limit (STEL):		IL OEL
Xylene 1330-20-7 [XYLENE (XYLOLE) AND XYLENE COMPOUNDS]	100		Time Weighted Average (TWA):		IL OEL
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	75		Short-term exposure limit (STEL):		IL OEL
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	20		Time Weighted Average (TWA):		IL OEL
Butan-1-ol 71-36-3 [N-BUTANOL]	20		Time Weighted Average (TWA):		IL OEL
Butanone 78-93-3 [Methyl ethyl ketone (MEK)]			Skin designation:	Danger of cutaneous absorption	IL OEL
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK) Methyl ethyl ketone (MEK)]	150		Short-term exposure limit (STEL):		IL OEL
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK) Methyl ethyl ketone (MEK)]	75		Time Weighted Average (TWA):		IL OEL

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 13 of 33

Ethylbenzene 100-41-4 [ETHYL BENZENE]	20		Time Weighted Average (TWA):		IL OEL
Zinc oxide 1314-13-2 [ZINC OXIDE, RESPIRABLE FRACTION]		10	Short-term exposure limit (STEL):		IL OEL
Zinc oxide 1314-13-2 [Zinc oxide, respirable fraction]		2	Time Weighted Average (TWA):		IL OEL

Occupational Exposure Limits

Valid for
Kenya

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Xylene 1330-20-7 [XYLENE,O-,M-,P- OR MIXED ISOMERS]	100	435	Time-weighted average (TWA) OEL-RL:		KE OEL-RL
Xylene 1330-20-7 [XYLENE,O-,M-,P- OR MIXED ISOMERS]	150	650	Short-term OEL-RL:		KE OEL-RL
Xylene 1330-20-7 [XYLENE,O-,M-,P- OR MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	KE OEL-RL
4-Methylpentan-2-one 108-10-1 [HEXONE 4-METHYLPENTAN-2-ONE ISOBUTYL METHYL KETONE METHYL ISOBUTYL KETONE (MIBK)]	50	205	Time-weighted average (TWA) OEL-RL:		KE OEL-RL
4-Methylpentan-2-one 108-10-1 [ISOBUTYL METHYL KETONE METHYL ISOBUTYL KETONE (MIBK) 4-METHYLPENTAN-2-ONE HEXONE]	75	300	Short-term OEL-RL:		KE OEL-RL
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE (MIBK) ISOBUTYL METHYL KETONE 4-METHYLPENTAN-2-ONE HEXONE]			Skin designation:	Can be absorbed through the skin.	KE OEL-RL
Butan-1-ol 71-36-3 [BUTAN-1-OL N-BUTYL ALCOHOL]			Skin designation:	Can be absorbed through the skin.	KE OEL-RL
Butan-1-ol 71-36-3 [N-BUTYL ALCOHOL BUTAN-1-OL]	50	150	Short-term OEL-RL:		KE OEL-RL
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK) BUTAN-2-ONE]	200	590	Time-weighted average (TWA) OEL-RL:		KE OEL-RL
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK) BUTAN-2-ONE]	300	885	Short-term OEL-RL:		KE OEL-RL
Ethylbenzene 100-41-4 [ETHYLBENZENE]	100	435	Time-weighted average (TWA) OEL-RL:		KE OEL-RL
Ethylbenzene 100-41-4 [ETHYLBENZENE]		545	Short-term OEL-RL:		KE OEL-RL
Zinc oxide		10	Short-term OEL-RL:		KE OEL-RL

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 14 of 33

1314-13-2 [ZINC OXIDE, FUME]					
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME]		5	Time-weighted average (TWA) OEL-RL:		KE OEL-RL

Biological Exposure Indices:

None

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE (MIBK)]	methyl isobutyl ketone	Urine	Sampling time: End of shift.	2 mg/l	KW BEL		
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK)]	MEK	Urine	Sampling time: End of shift.	2 mg/l	KW BEL		
Ethylbenzene 100-41-4 [ETHYL BENZENE [ENTRY 2]]	Ethyl benzene	End-exhaled air	Sampling time: End of shift at end of work week.		KW BEL		
Ethylbenzene 100-41-4 [ETHYL BENZENE]	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	Sampling time: End of shift at end of work week.	1,5 g/g	KW BEL		

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Xylene 1330-20-7 [XYLENE]	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.	1,5 g/g	IL BEI		Source of limit value(s): Israel
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE (MIBK)]	methyl isobutyl ketone	Urine	Sampling time: End of shift.	1 mg/l	IL BEI		Source of Limit value: ACGIH
Butanone 78-93-3 [METHYL ETHYL KETONE (MEK)]	MEK	Urine	Sampling time: End of shift.	2 mg/l	IL BEI	Nonspecific	Source of Limit value: ACGIH
Ethylbenzene 100-41-4 [ETHYL BENZENE Ethyl benzene]	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	Sampling time: End of shift.	150 mg/g	IL BEI	Nonspecific	Source of Limit value: ACGIH

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Xylene 1330-20-7 [XYLENE]	Methylhippuric acids	Urine	Sampling time: Last 4 hours of the shift.		KE BEI		
Xylene 1330-20-7 [XYLENE]	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.	1,5 g/g	KE BEI		
4-Methylpentan-2-one 108-10-1 [METHYL ISOBUTYL KETONE]	MIBK	Urine	Sampling time: End of shift.	2 mg/l	KE BEI		
Butanone 78-93-3 [METHYL ETHYL KETONE]	MEK	Urine	Sampling time: End of shift.	2 mg/l	KE BEI		
Ethylbenzene 100-41-4 [ETHYL BENZENE]	Mandelic acid	Creatinine in urine	Sampling time: End of shift at end of work week.	1,5 g/g	KE BEI	A: This notation indicates that an identifiable population group might have an increased susceptibility to the effect of the chemical, thus leaving	

<p>Ethylbenzene 100-41-4 [ETHYL BENZENE]</p>	<p>Ethyl benzene</p>	<p>End-exhaled air</p>			<p>KE BEI</p>	<p>it unprotected by the recommended BEL. D: This notation indicates that the biological determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous (semi-quantitative). These biological determinants should be used as a screening test if a quantitative test is not practical or a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.</p>	
------------------------------------------------------	--------------------------	------------------------	--	--	---------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

8.2. Exposure controls:

Respiratory protection:

Suitable breathing mask when there is inadequate ventilation.
Combination filter: ABEKP (EN 14387)
This recommendation should be matched to local conditions.

Hand protection:

In the case of longer contact protective gloves made from butyl rubber are recommended according to EN 374.
Perforation time > 10 minutes
material thickness > 0,3 mm

In the case of longer and repeated contact please note that in practice the penetration times may be considerably shorter than those determined according to EN 374. The protective gloves must always be checked for their suitability for use at the specific workplace (e.g. mechanical and thermal stress, product compatibility, antistatic effects, etc.). The gloves must be replaced immediately at the first signs of wear and tear. The information provided by the manufacturers and given in the relevant trade association regulations for industrial safety must always be observed. We recommend that a hand care plan is drawn up in cooperation with a glove manufacturer and the trade association in accordance with the local operating conditions.

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s).Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

Eye protection:

Goggles which can be tightly sealed.
Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	liquid
Colour	Gray / Grey
Odor	characteristic
Physical state	liquid
Melting point	Currently under determination
Initial boiling point	129 °C (264.2 °F);; Boiling point
Flammability	Currently under determination
Explosive limits	Currently under determination
Flash point	25,4 °C (77.72 °F); HST-US D09F; Flash/Fire Point By Cleveland Open Cup
Auto-ignition temperature	Currently under determination
Decomposition temperature	Currently under determination
pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	Currently under determination
Viscosity, dynamic	Not applicable, Highly viscous
()	
Flow cup viscosity	14 - 20 s C-Q-50; FORD CUP #4 MEASUREMENT METHOD
(;;C-Q-50; FORD CUP #4 MEASUREMENT METHOD)	
Solubility (qualitative)	Currently under determination
Partition coefficient: n-octanol/water	Currently under determination
Vapour pressure	Currently under determination
Density	1,55 - 1,65 g/cm ³ DIN ISO 787 T10 MOD. Density, Pycnometer
(20 °C (68 °F))	
Relative vapour density:	Currently under determination
Particle characteristics	Currently under determination

9.2. Other information

Flow cup viscosity	14 - 20 s
(;)	

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Xylene - mixture of isomeres 1330-20-7	LD50	3.523 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	3.523 mg/kg		Expert judgement
4-methylpentan-2-one 108-10-1	LD50	2.080 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
butan-1-ol 71-36-3	LD50	790 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Butanone 78-93-3	LD50	2.193 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
ethylbenzene 100-41-4	LD50	3.500 mg/kg	rat	not specified
ethylbenzene 100-41-4	Acute toxicity estimate (ATE)	3.500 mg/kg		Expert judgement
zinc oxide 1314-13-2	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Xylene - mixture of isomeres 1330-20-7	LD50	1.700 mg/kg	rabbit	not specified
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	1.700 mg/kg		Expert judgement
4-methylpentan-2-one 108-10-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
4-methylpentan-2-one 108-10-1	LD0	>= 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
butan-1-ol 71-36-3	LD50	3.430 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Butanone 78-93-3	LD50	> 6.400 mg/kg	rabbit	not specified
ethylbenzene 100-41-4	LD50	15.433 mg/kg	rabbit	not specified
ethylbenzene 100-41-4	Acute toxicity estimate (ATE)	15.433 mg/kg		Expert judgement
zinc oxide 1314-13-2	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The toxicity of the product is due to its narcotic effect after inhalation.
In the event of protracted or repeated exposure, damage to health cannot be excluded.

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	LC50	> 5,41 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Xylene - mixture of isomeres 1330-20-7	LC50	11 mg/l	vapour	4 h	rat	not specified
Xylene - mixture of isomeres 1330-20-7	Acute toxicity estimate (ATE)	11 mg/l	vapour			Expert judgement
4-methylpentan-2-one 108-10-1	Acute toxicity estimate (ATE)	11 mg/l	vapour			Expert judgement
4-methylpentan-2-one 108-10-1	LC50	8,2 - 16,4 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
butan-1-ol 71-36-3	LC50	> 17,76 mg/l	vapour	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)
Butanone 78-93-3	LC50	34,5 mg/l	vapour	4 h	rat	not specified
ethylbenzene 100-41-4	LC50	17,4 mg/l	vapour	4 h	rat	not specified
ethylbenzene 100-41-4	Acute toxicity estimate (ATE)	17,4 mg/l	vapour			Expert judgement
zinc oxide 1314-13-2	LC50	> 5,7 mg/l	dust/mist	4 h	rat	equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	not irritating	24 h	rabbit	not specified
Xylene - mixture of isomeres 1330-20-7	moderately irritating		rabbit	not specified
4-methylpentan-2-one 108-10-1	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
butan-1-ol 71-36-3	irritating	2 h	rabbit	not specified
Butanone 78-93-3	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
ethylbenzene 100-41-4	not irritating		rabbit	Expert judgement
zinc oxide 1314-13-2	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Xylene - mixture of isomeres 1330-20-7	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
4-methylpentan-2-one 108-10-1	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
butan-1-ol 71-36-3	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Butanone 78-93-3	irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
ethylbenzene 100-41-4	irritating		human	Weight of evidence
zinc oxide 1314-13-2	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Xylene - mixture of isomeres 1330-20-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
4-methylpentan-2-one 108-10-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
butan-1-ol 71-36-3	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Butanone 78-93-3	not sensitising	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
zinc oxide 1314-13-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Zinc powder - zinc dust (stabilised) 7440-66-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Zinc powder - zinc dust (stabilised) 7440-66-6	ambiguous	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Xylene - mixture of isomeres 1330-20-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Xylene - mixture of isomeres 1330-20-7	negative	in vitro mammalian chromosome aberration test	with and without		EU Method B.10 (Mutagenicity)
Xylene - mixture of isomeres 1330-20-7	negative	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
4-methylpentan-2-one 108-10-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
4-methylpentan-2-one 108-10-1	negative	in vitro mammalian chromosome aberration test	without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
4-methylpentan-2-one 108-10-1	ambiguous without metabolic activation	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
butan-1-ol 71-36-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test
butan-1-ol 71-36-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
butan-1-ol 71-36-3	negative	in vitro mammalian cell micronucleus test	without		not specified
Butanone 78-93-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Butanone 78-93-3	negative	in vitro mammalian chromosome aberration test	not applicable		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Butanone 78-93-3	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
ethylbenzene 100-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)
ethylbenzene 100-41-4	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
ethylbenzene 100-41-4	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
ethylbenzene 100-41-4	negative	sister chromatid exchange assay in mammalian cells	with and without		not specified
zinc oxide	negative	bacterial reverse	with and without		OECD Guideline 471

1314-13-2		mutation assay (e.g Ames test)			(Bacterial Reverse Mutation Assay)
zinc oxide 1314-13-2	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
zinc oxide 1314-13-2	ambiguous	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Zinc powder - zinc dust (stabilised) 7440-66-6	negative	inhalation: aerosol		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Zinc powder - zinc dust (stabilised) 7440-66-6	negative	inhalation: aerosol		rat	OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)
Xylene - mixture of isomers 1330-20-7	negative	intraperitoneal		rat	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
4-methylpentan-2-one 108-10-1	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
butan-1-ol 71-36-3	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Butanone 78-93-3	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
ethylbenzene 100-41-4	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
ethylbenzene 100-41-4	negative	inhalation		mouse	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
zinc oxide 1314-13-2	negative	inhalation: aerosol		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
zinc oxide 1314-13-2	negative	inhalation: aerosol		rat	OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	not carcinogenic	oral: drinking water	1 y daily	mouse	male/female	not specified
Xylene - mixture of isomers 1330-20-7	not carcinogenic	oral: gavage	103 w 5 d/w	rat	male/female	EU Method B.32 (Carcinogenicity Test)
4-methylpentan-2-one 108-10-1		inhalation: vapour	2 y 6 h/d, 5 d/w	rat	male/female	OECD Guideline 451 (Carcinogenicity Studies)
zinc oxide 1314-13-2	not carcinogenic	oral: drinking water	1 y daily	mouse	male/female	not specified

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	NOAEL P 3,6 mg/kg NOAEL F1 7,2 mg/kg	Two generation study	oral: gavage	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
4-methylpentan-2-one 108-10-1		screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
4-methylpentan-2-one 108-10-1		One generation study	oral: gavage	rat	OECD Guideline 415 (One- Generation Reproduction Toxicity Study)
4-methylpentan-2-one 108-10-1		Two generation study	oral: gavage	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
butan-1-ol 71-36-3	NOAEL P 500 mg/kg	Two generation study	oral: gavage	rat	not specified
butan-1-ol 71-36-3	NOAEL P 2000 ppm NOAEL F1 2000 ppm	Two generation study	inhalation: vapour	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
Butanone 78-93-3	NOAEL P 10.000 mg/l NOAEL F1 10.000 mg/l	two- generation study	oral: drinking water	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
ethylbenzene 100-41-4	NOAEL P 1000 ppm NOAEL F1 100 ppm	One generation study	oral: gavage	rat	equivalent or similar to OECD Guideline 415 (One- Generation Reproduction Toxicity Study)
ethylbenzene 100-41-4	NOAEL P 500 ppm NOAEL F1 500 ppm NOAEL F2 500 ppm	Two generation study	inhalation	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
zinc oxide 1314-13-2	NOAEL P 7,5 mg/kg NOAEL F1 15 mg/kg	Two generation study	oral: gavage	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

STOT-single exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Assessment	Route of exposure	Target Organs	Remarks
butan-1-ol 71-36-3	May cause respiratory irritation.			
butan-1-ol 71-36-3	May cause drowsiness or dizziness.			
Butanone 78-93-3	May cause drowsiness or dizziness.			
ethylbenzene 100-41-4	Category 3 with narcotic effects., Category 3 with respiratory tract irritation.			

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	NOAEL 104 mg/kg	oral: feed	13 w daily	mouse	not specified
Zinc powder - zinc dust (stabilised) 7440-66-6	NOAEL 25,1 mg/kg	oral: gavage	90 daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Xylene - mixture of isomeres 1330-20-7	NOAEL 150 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
4-methylpentan-2-one 108-10-1	NOAEL 250 mg/kg	oral: gavage	13 w daily	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
butan-1-ol 71-36-3	NOAEL 125 mg/kg	oral: gavage	13 w daily	rat	not specified
Butanone 78-93-3	NOAEL 2500 ppm	inhalation	90 days 6 hours/day, 5 days/week	rat	not specified
ethylbenzene 100-41-4	NOAEL 75 mg/kg	oral: gavage	28 d daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
zinc oxide 1314-13-2	NOAEL 31,52 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
zinc oxide 1314-13-2	NOAEL 1.5 mg/m ³	inhalation	3 m 6 h/d, 5 d/w	rat	OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)
zinc oxide 1314-13-2	NOAEL 1.000 mg/kg	dermal	90 d 6 h/d, daily	rat	OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard:

No Aspiration toxicity classification

Based on available data, the classification criteria are not met.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Butanone 78-93-3	0,51 mm ² /s	20 °C	ASTM Standard D7042	
ethylbenzene 100-41-4	0,641 mm ² /s	40 °C	OECD Test Guideline 114	

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity**Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Zinc powder - zinc dust (stabilised) 7440-66-6	LC50	0,8 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomers 1330-20-7	LC50	2,6 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomers 1330-20-7	NOEC	0,714 mg/l	35 d	Danio rerio	OECD Guideline 210 (fish early lite stage toxicity test)
4-methylpentan-2-one 108-10-1	LC50	600 mg/l	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
butan-1-ol 71-36-3	LC50	1.376 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Butanone 78-93-3	LC50	3.220 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
ethylbenzene 100-41-4	LC50	4,2 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
zinc oxide 1314-13-2	LC50	0,142 mg/l	96 h	Thymallus arcticus	OECD Guideline 203 (Fish, Acute Toxicity Test)
zinc oxide 1314-13-2	NOEC	0,44 mg/l	72 d	Oncorhynchus mykiss	other guideline:

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Xylene - mixture of isomers 1330-20-7	EC50	3,1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
4-methylpentan-2-one 108-10-1	EC50	170 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
butan-1-ol 71-36-3	EC50	1.328 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butanone 78-93-3	EC50	5.091 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
ethylbenzene 100-41-4	EC50	> 1,8 - 2,4 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
zinc oxide 1314-13-2	EC50	1 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No.: 558645 V003.2

Page 27 of 33

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Xylene - mixture of isomers 1330-20-7	NOEC	0,96 mg/l	7 d	Ceriodaphnia dubia	other guideline:
4-methylpentan-2-one 108-10-1	NOEC	30 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
butan-1-ol 71-36-3	NOEC	4,1 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
ethylbenzene 100-41-4	NOEC	0,96 mg/l	7 d	Ceriodaphnia dubia	OECD 211 (Daphnia magna, Reproduction Test)
zinc oxide 1314-13-2	NOEC	0,058 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Xylene - mixture of isomers 1330-20-7	EC50	4,36 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomers 1330-20-7	EC10	1,9 mg/l	73 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
4-methylpentan-2-one 108-10-1	EC50	400 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
butan-1-ol 71-36-3	EC50	225 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
butan-1-ol 71-36-3	NOEC	129 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butanone 78-93-3	EC50	1.240 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butanone 78-93-3	EC10	1.010 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
ethylbenzene 100-41-4	EC50	7,7 mg/l	96 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)
ethylbenzene 100-41-4	NOEC	4,5 mg/l	96 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)
zinc oxide 1314-13-2	NOEC	0,017 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
zinc oxide 1314-13-2	EC50	0,17 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
4-methylpentan-2-one 108-10-1	EC0	275 mg/l	16 h		not specified
butan-1-ol 71-36-3	EC10	2.476 mg/l	17 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test)
Butanone 78-93-3	EC50	1.150 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test)
ethylbenzene 100-41-4	EC50	> 152 mg/l	30 min	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
zinc oxide 1314-13-2	IC50	5,2 mg/l	3 h	not specified	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Xylene - mixture of isomeres 1330-20-7	readily biodegradable	aerobic	90 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
4-methylpentan-2-one 108-10-1	readily biodegradable	aerobic	99 %	7 day	OECD Guideline 301 E (Ready Biodegradability: Modified OECD Screening Test)
butan-1-ol 71-36-3	readily biodegradable	aerobic	70 - 81 %	30 d	EU Method C.4-E (Determination of the "Ready" Biodegradability: Closed Bottle Test)
Butanone 78-93-3	readily biodegradable	aerobic	98 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
ethylbenzene 100-41-4	readily biodegradable	aerobic	69 %	33 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Xylene - mixture of isomeres 1330-20-7	25,9	56 d		Oncorhynchus mykiss	not specified
ethylbenzene 100-41-4	1	42 d	10 °C	Oncorhynchus kisutch	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Xylene - mixture of isomers 1330-20-7	3,16	20 °C	not specified
4-methylpentan-2-one 108-10-1	1,9		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
butan-1-ol 71-36-3	1	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Butanone 78-93-3	0,3	40 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
ethylbenzene 100-41-4	3,6	20 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Zinc powder - zinc dust (stabilised) 7440-66-6	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.
Xylene - mixture of isomers 1330-20-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
4-methylpentan-2-one 108-10-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
butan-1-ol 71-36-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butanone 78-93-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
ethylbenzene 100-41-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
zinc oxide 1314-13-2	According to Annex XIII to Regulation (EC) No 1907/2006, a PBT and vPvB assessment shall not be conducted for inorganic substances.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages:

Use packages for recycling only when totally empty.

Waste code

080119

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

ADR	1139
RID	1139
ADN	1139
IMDG	1139
IATA	1139

14.2. UN proper shipping name

ADR	COATING SOLUTION
RID	COATING SOLUTION
ADN	COATING SOLUTION
IMDG	COATING SOLUTION (Zinc powder)
IATA	Coating solution

14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Environmentally Hazardous
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (D/E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

No information available:

Ozone Depleting Substance (ODS) (Regulation (EC) No 2024/590):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

This Safety Data Sheet has been generated based on Regulation (EC) No 1907/2006 and it is applicable for Gulf Cooperation Council (GCC) and Africa only. No warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory, including export laws and regulations. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory affairs for additional assistance.

Dear Customer,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

Product is intended for professional use.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.