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

1.1 Product identifier

Galva 97 - Zinc primer
Article number: 2893880

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

1.2.1 Relevant uses

Corrosion protection

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Normfest GmbH
Siemensstraße 23
42551 Velbert / GERMANY
Phone +49 2051 275-0
Fax +49 2051 275-141
Homepage www.normfest.com
E-mail info@normfest.de

Address enquiries to

Technical information info@normfest.de

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body Call NHS 111 or a doctor

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
STOT SE 3: H336 May cause drowsiness or dizziness.
Eye Irrit. 2: H319 Causes serious eye irritation.
Aquatic Acute 1: H400 Very toxic to aquatic life.
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects.
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways.
Skin Irrit. 2: H315 Causes skin irritation.
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

The determination of properties hazardous to health does not take the propellant or carrier material into account.

Hazard pictograms

Signal word DANGER

Contains: n-Butyl acetate

Acetone

Reaction mass of ethylbenzene and xylene

Hydrocarbons, C9, aromatics

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H336 May cause drowsiness or dizziness.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.
H315 Causes skin irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary 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.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F.
P260 Do not breathe vapours / spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice / attention.
P312 Call a POISON CENTER / doctor if you feel unwell.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling EUH066 Repeated exposure may cause skin dryness or cracking.

2004/42/CE 636 g/l II B e Special finishes (max. 840 g/l)

2.3 Other hazards

Environmental hazards Does not contain any PBT or vPvB substances.

Other hazards Contains no ingredients with endocrine-disrupting properties.
Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
25 - <50	Zinc powder - zinc dust (stabilized)
	CAS: 7440-66-6, EINECS/ELINCS: 231-175-3, EU-INDEX: 030-002-00-7, Reg-No.: 01-2119467174-37-XXXX
	GHS/CLP: Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M-Factor (acute): 1
10 - <25	Butane
	CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
	GHS/CLP: Flam. Gas 1A: H220 - Press. Gas: H280
10 - <25	n-Butyl acetate
	CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - STOT SE 3: H336 - EUH066
10 - <25	Acetone
	CAS: 67-64-1, EINECS/ELINCS: 200-662-2, EU-INDEX: 606-001-00-8, Reg-No.: 01-2119471330-49-XXXX
	GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319 - STOT SE 3: H336 - EUH066
1 - <10	Propane
	CAS: 74-98-6, EINECS/ELINCS: 200-827-9, EU-INDEX: 601-003-00-5, Reg-No.: 01-2119486944-21-XXXX
	GHS/CLP: Flam. Gas 1A: H220 - Press. Gas: H280
1 - <10	Reaction mass of ethylbenzene and xylene
	EINECS/ELINCS: 905-588-0, Reg-No.: 01-2119488216-32-XXXX, 01-2119486136-34-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H312 H332 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - STOT SE 3: H335 - STOT RE 2: H373
	SCL [%]: >= 10: STOT RE 2: H373
1 - <10	Hydrocarbons, C9, aromatics
	CAS: 128601-23-0, EINECS/ELINCS: 918-668-5, Reg-No.: 01-2119455851-35-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - STOT SE 3: H336 - STOT SE 3: H335 - Aquatic Chronic 2: H411
<1	Pentan-2-one oxime
	CAS: 623-40-5, EINECS/ELINCS: 484-470-6, Reg-No.: 01-0000020248-72-XXXX
	GHS/CLP: Acute Tox. 4: H302 - Eye Irrit. 2: H319 - STOT RE 2: H373 - Aquatic Chronic 3: H412

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Change soaked clothing.
In the event of symptoms seek medical treatment.

Inhalation Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

Ingestion Rinse mouth.
Get medical advice.
Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Headache
Vertigo
Irritant effects
Nausea, vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
If swallowed or in the event of vomiting, risk of product entering the lungs.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide.
Water spray jet.
Dry powder.
Foam.

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

risk of formation of toxic pyrolysis products, carbon monoxide (CO), not combusted hydrocarbons
Bursting aerosols can be forcibly projected from a fire.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.

Keep away from all sources of ignition - Refrain from smoking.
Vapours can form an explosive mixture with air.

Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.

Do not store together with oxidizing agents.

Keep container in a well-ventilated place.
Keep in a cool place, heat causes increase in pressure and risk of bursting.
Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
n-Butyl acetate
CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
Long-term exposure: 150 ppm, 724 mg/m³
Short-term exposure (15-minute): 200 ppm, 966 mg/m³
Acetone
CAS: 67-64-1, EINECS/ELINCS: 200-662-2, EU-INDEX: 606-001-00-8, Reg-No.: 01-2119471330-49-XXXX
Long-term exposure: 500 ppm, 1210 mg/m³
Short-term exposure (15-minute): 1500 ppm, 3620 mg/m³
Butane
CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
Long-term exposure: 600 ppm, 1450 mg/m³
Short-term exposure (15-minute): 750 ppm, 1810 mg/m³
Hydrocarbons, C9, aromatics
CAS: 128601-23-0, EINECS/ELINCS: 918-668-5, Reg-No.: 01-2119455851-35-XXXX
Long-term exposure: 100 mg/m³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
n-Butyl acetate
CAS: 123-86-4, EINECS/ELINCS: 204-658-1, EU-INDEX: 607-025-00-1, Reg-No.: 01-2119485493-29-XXXX
Eight hours: 50 ppm, 241 mg/m³
Short-term (15-minute): 150 ppm, 723 mg/m³
Acetone
CAS: 67-64-1, EINECS/ELINCS: 200-662-2, EU-INDEX: 606-001-00-8, Reg-No.: 01-2119471330-49-XXXX
Eight hours: 500 ppm, 1210 mg/m³

DNEL

Substance
Butane, CAS: 106-97-8
There are no DNEL values established for the substance.
Reaction mass of ethylbenzene and xylene
Industrial, inhalative (vapor), Long-term - systemic effects, 221 mg/m³
Industrial, inhalative (vapor), Acute - systemic effects, 442 mg/m³
Industrial, inhalative (vapor), Long-term - local effects, 221 mg/m³
Industrial, inhalative (vapor), Acute - local effects, 442 mg/m³
Industrial, dermal, Long-term - systemic effects, 212 mg/kg bw/day
general population, inhalative (vapor), Acute - local effects, 260 mg/m³
general population, dermal, Acute - local effects, 125 mg/kg bw/day
general population, inhalative (vapor), Long-term - local effects, 65.3 mg/m³
general population, inhalative (vapor), Acute - systemic effects, 260 mg/m³
general population, oral, Long-term - systemic effects, 12.5 mg/kg bw/day
general population, inhalative (vapor), Long-term - systemic effects, 65.3 mg/m³

Acetone, CAS: 67-64-1
Industrial, dermal, Long-term - systemic effects, 186 mg/kg bw/d
Industrial, inhalative, Long-term - local effects, 2420 mg/m³
Industrial, inhalative, Long-term - systemic effects, 1210 mg/m³
general population, inhalative, Long-term - systemic effects, 200 mg/m³
general population, dermal, Long-term - systemic effects, 62 mg/kg bw/d
general population, oral, Long-term - systemic effects, 62 mg/kg bw/d
Propane, CAS: 74-98-6
There are no DNEL values established for the substance.
n-Butyl acetate, CAS: 123-86-4
Industrial, inhalative, Long-term - systemic effects, 300 mg/m³
Industrial, inhalative, Acute - systemic effects, 600 mg/m³
Industrial, inhalative, Acute - local effects, 600 mg/m³
Industrial, dermal, Long-term - systemic effects, 11 mg/kg bw/day
Industrial, dermal, Acute - systemic effects, 11 mg/kg bw/day
Industrial, inhalative, Long-term - local effects, 300 mg/m³
general population, inhalative, Long-term - systemic effects, 35.7 mg/m³
general population, inhalative, Acute - systemic effects, 300 mg/m³
general population, inhalative, Long-term - local effects, 35.7 mg/m³
general population, oral, Long-term - systemic effects, 2 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 6 mg/kg bw/day
general population, oral, Acute - systemic effects, 2 mg/kg bw/day
general population, inhalative, Acute - local effects, 300 mg/m³
general population, dermal, Acute - systemic effects, 6 mg/kg bw/day
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
Industrial, inhalative (vapor), Long-term - systemic effects, 150 mg/m³
Industrial, dermal, Long-term - systemic effects, 25 mg/kg bw/day
general population, inhalative (vapor), Long-term - systemic effects, 32 mg/m³
general population, oral, Long-term - systemic effects, 11 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 11 mg/kg bw/day

PNEC

Substance
Butane, CAS: 106-97-8
There are no PNEC values established for the substance.
Reaction mass of ethylbenzene and xylene
soil, 2.31 mg/kg soil dw
sediment (seawater), 12.46 mg/kg sediment dw
sediment (freshwater), 12.46 mg/kg sediment dw
sewage treatment plants (STP), 6.58 mg/L
seawater, 0.327 mg/L
freshwater, 0.327 mg/L
Acetone, CAS: 67-64-1
sediment (freshwater), 30.4 mg/kg sediment dw
freshwater, 10.6 mg/L
soil, 29.5 mg/kg soil dw
sewage treatment plants (STP), 100 mg/L
sediment (seawater), 3.04 mg/kg sediment dw
seawater, 1.06 mg/L

Propane, CAS: 74-98-6
There are no PNEC values established for the substance.
n-Butyl acetate, CAS: 123-86-4
soil, 0.09 mg/kg/ dw
sediment (seawater), 0.098 mg/kg/ dw
sediment (freshwater), 0.981 mg/kg/ dw
sewage treatment plants (STP), 35.6 mg/L (AF= 10)
seawater, 0.018 mg/L (AF= 1000)
freshwater, 0.18 mg/L (AF= 100)
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
There are no PNEC values established for the substance.
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
sewage treatment plants (STP), 100 µg/L
seawater, 7.2 µg/L
sediment (freshwater), 146.9 mg/kg sediment dw
sediment (seawater), 162.2 mg/kg sediment dw
soil, 83.1 mg/kg
freshwater, 14.4 µg/L

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.
Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

Eye protection
Safety glasses. (EN 166:2001)

Hand protection
0.7 mm Butyl rubber, >480 min (EN 374-1/-2/-3).
The details concerned are recommendations. Please contact the glove supplier for further information.

Skin protection
Long-sleeved work clothes.

Other
Avoid contact with eyes and skin.
Do not inhale gases/vapours/aerosols.
Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.

Respiratory protection
In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.
Short term: combination filter AX-P2. (DIN EN 14387)

Thermal hazards
No information available.

Delimitation and monitoring of the environmental exposition
not determined

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	aerosol
Color	silver-grey
Odor	characteristic
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability	yes
Lower explosion limit	1.86 Vol.%
Upper explosion limit	14.3 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm³]	1.792 (Liquid)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	immiscible
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	not applicable
Particle characteristics	not applicable

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Risk of bursting.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong oxidizing agent.
Strong acids.
Strong bases.

10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information

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

Acute oral toxicity

Product
ATE-mix, oral, >2000 mg/kg bw

Substance
Reaction mass of ethylbenzene and xylene
LD50, oral, Rat, 3523 - 4000 mg/kg
Acetone, CAS: 67-64-1
LD50, oral, Rat, 5800 mg/kg bw, OECD 401
n-Butyl acetate, CAS: 123-86-4
LD50, oral, Rat, 10760 mg/kg (OECD 423)
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
LD50, oral, Rat, 6984 mg/kg
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
LD50, oral, Rat, > 2000 mg/kg bw, OECD 401
Pentan-2-one oxime, CAS: 623-40-5
LD50, oral, Rat, 1133 mg/kg, OECD 425

Acute dermal toxicity

Product
ATE-mix, dermal, >2000 mg/kg bw

Substance
Reaction mass of ethylbenzene and xylene
LD50, dermal, Rabbit, 12126 mg/kg
Acetone, CAS: 67-64-1
LD50, dermal, Rabbit, >15800 mg/kg bw
n-Butyl acetate, CAS: 123-86-4
LD50, dermal, Rabbit, >14112 mg/kg (OECD 402)
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
LD50, dermal, Rabbit, 3160 mg/kg

Acute inhalational toxicity

Product
ATE-mix, inhalativ (mist), >5 mg/L

Substance
Butane, CAS: 106-97-8
LC50, inhalative, Rat, 658 mg/L (IUCLID)
Reaction mass of ethylbenzene and xylene
LC50, inhalation (vapour), Rat, 6350 - 6700 ppm 4h
Acetone, CAS: 67-64-1
LC50, inhalative, Rat, 76 mg/L, 4h
Propane, CAS: 74-98-6
LC50, inhalative, Rat, > 1443 mg/l (15 min) (Lit.)

n-Butyl acetate, CAS: 123-86-4
LC50, inhalative, Rat, 23.4 mg/l (4h) (OECD 403)
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
LC50, inhalative, Rat, 6.193 mg/L (4h)
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
LC50, inhalativ (dust), Rat, > 5.41 mg/L 4h, OECD 403
Pentan-2-one oxime, CAS: 623-40-5
LC50, inhalative, Rat, > 295 ppm/4h, OECD 403

Serious eye damage/irritation Irritant

Substance
Butane, CAS: 106-97-8
Eye, non-irritating
Reaction mass of ethylbenzene and xylene
Eye, irritant
Acetone, CAS: 67-64-1
Eye, irritant
Propane, CAS: 74-98-6
Eye, non-irritating
n-Butyl acetate, CAS: 123-86-4
Eye, Rabbit, OECD 405, non-irritating
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
Eye, Rabbit, Study, non-irritating
Pentan-2-one oxime, CAS: 623-40-5
Rabbit, OECD 405, irritant

Skin corrosion/irritation Slight irritant effect.

Substance
Butane, CAS: 106-97-8
dermal, non-irritating
Reaction mass of ethylbenzene and xylene
dermal, irritant
Acetone, CAS: 67-64-1
dermal, non-irritating
Propane, CAS: 74-98-6
dermal, non-irritating
n-Butyl acetate, CAS: 123-86-4
dermal, Rabbit, OECD 404, non-irritating
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
dermal, Rabbit, Study, non-irritating
Pentan-2-one oxime, CAS: 623-40-5
Rabbit, OECD 439, non-irritating

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Substance
Butane, CAS: 106-97-8
inhalative, non-sensitizing
dermal, non-sensitizing

Reaction mass of ethylbenzene and xylene
dermal, non-sensitizing
Acetone, CAS: 67-64-1
dermal, non-sensitizing
Propane, CAS: 74-98-6
inhalative, non-sensitizing
dermal, non-sensitizing
n-Butyl acetate, CAS: 123-86-4
dermal, Guinea pig, In vivo study, non-sensitizing
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
dermal, non-sensitizing
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
dermal, mouse, OECD 429, non-sensitizing
Pentan-2-one oxime, CAS: 623-40-5
mouse, Mouse local lymph node assay, OECD 429, non-sensitizing
dermal, Guinea pig, OECD 406, non-sensitizing

Specific target organ toxicity — single exposure Vapours may cause drowsiness and dizziness.

Substance
Butane, CAS: 106-97-8
inhalative, non-irritating
Reaction mass of ethylbenzene and xylene
inhalative, irritant
Acetone, CAS: 67-64-1
inhalative, adverse effect observed
Propane, CAS: 74-98-6
inhalative, non-irritating
n-Butyl acetate, CAS: 123-86-4
No information available.
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
inhalative, adverse effect observed

Specific target organ toxicity — repeated exposure May cause damage to organs through prolonged or repeated exposure.

Substance
Reaction mass of ethylbenzene and xylene
NOAEL, oral, Rat, 250 mg/kg bw/day (chronic), adverse effect observed
NOAEC, inhalative, Rat, 3515 mg/m³ (subchronic), adverse effect observed
Acetone, CAS: 67-64-1
NOAEL, oral, mouse, 20000 ppm, no adverse effect observed
NOAEL, oral, Rat, 10000 - 50000 ppm, no adverse effect observed
NOAEC, inhalative, Rat, 19000 ppm, no adverse effect observed
LOAEL, oral, mouse, 50000 ppm, no adverse effect observed
LOAEL, oral, Rat, 20000 ppm, no adverse effect observed
Propane, CAS: 74-98-6
NOAEC, inhalative, Rat, 4437 mg/m³, The effects observed are not sufficient for classification.
n-Butyl acetate, CAS: 123-86-4
NOAEL, oral, Rat, 196 mg/kg bw/day, In vivo study, negativ

NOAEC, inhalative, Rat, 2400 mg/m³, In vivo study, negativ
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
NOAEC, inhalativ (dust), Rat, 1.48 mg/m³, OECD 411, adverse effect observed
Pentan-2-one oxime, CAS: 623-40-5
NOAEL, oral, Rat, 150 mg/kg. 28d, OECD 422
NOAEL, oral, Rat, 15 mg/kg. 28d, OECD 422, The effects observed are not sufficient for classification.
NOAEC, inhalative, Rat, 299 ppm, OECD 412

Mutagenicity Based on the available information, the classification criteria are not fulfilled.

Substance
Reaction mass of ethylbenzene and xylene
in vivo, no adverse effect observed
n-Butyl acetate, CAS: 123-86-4
Ames-test, negativ
Pentan-2-one oxime, CAS: 623-40-5
Rat, OECD 475, negativ
Rat, OECD 474, negativ
in vitro, OECD 473, negativ
OECD 487, negativ
OECD 471, negativ

Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.

- Fertility

Substance
n-Butyl acetate, CAS: 123-86-4
NOAEC, inhalative, Rat, 9640 mg/m³, OECD 416, negativ
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
LOAEL, inhalative, Rat, 7.5 mg/kg bw/day, OECD 416, adverse effect observed
Pentan-2-one oxime, CAS: 623-40-5
NOAEL, oral, Rat, 150 mg/kg bw/d, OECD 422

- Development

Substance
Reaction mass of ethylbenzene and xylene
inhalative, Rat, 4698 mg/m³, no adverse effect observed
n-Butyl acetate, CAS: 123-86-4
LOAEC, inhalation (vapour), Rat, 7230 mg/m³, OECD 414, adverse effect observed
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
NOAEC, inhalative, Rat, 1.5 mg/m³ air, OECD 414, no adverse effect observed
Pentan-2-one oxime, CAS: 623-40-5
NOAEL, oral, Rat, 150 mg/kg bw/d, OECD 422

Carcinogenicity Based on the available information, the classification criteria are not fulfilled.

Substance
Reaction mass of ethylbenzene and xylene
NOAEL, oral, Rat, 500 mg/kg bw/day (chronic), no adverse effect observed

Aspiration hazard May be fatal if swallowed and enters airways.

General remarks

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

11.2.2 Other information

SECTION 12: Ecological information

12.1 Toxicity

Substance
Butane, CAS: 106-97-8
LC50, (48h), Invertebrates, 14.22 - 69.43 mg/L
Reaction mass of ethylbenzene and xylene
LC50, (24h), Daphnia magna, 1 mg/l OECD 202
LC50, (96h), Oncorhynchus mykiss, 2.6 mg/l OECD 203
EC50, (72h), Selenastrum capricornutum, 2.2 mg/l OECD 201
Acetone, CAS: 67-64-1
LC50, (96h), fish, 5.54 - 8.12 g/L
LC50, (48h), Daphnia pulex, 8800 mg/l
LC50, (24h), Invertebrates, 2.1 g/L
EC50, (0,5h), Microorganisms, 61.15 g/L
NOEC, (96h), Algae, 430 mg/l
NOEC, (28d), Invertebrates, 1.106 - 2.212 g/L
LOEC, (28d), Invertebrates, 2.212 g/L
n-Butyl acetate, CAS: 123-86-4
LC50, (96h), Pimephales promelas, 18 mg/l (OECD 203)
EC50, (48h), Daphnia magna, 44 mg/l
EC50, (72h), Desmodesmus subspicatus, 647.7 mg/l
IC50, Bacteria, 356 mg/l (40 h)
NOEC, Desmodesmus subspicatus, 200 mg/l
Hydrocarbons, C9, aromatics, CAS: 128601-23-0
LC50, (48h), Oncorhynchus mykiss, 9.22 mg/L
EC50, (48h), Daphnia magna, 6.14 mg/L
EL50, (48h), Daphnia magna, 3.2 mg/l (OECD 202)
NOELR, (72h), Pseudokirchneriella subcapitata, 1 mg/l (OECD 201)
NOELR, (28d), Oncorhynchus mykiss, 1.228 mg/l
NOELR, (21d), Daphnia magna, 2.144 mg/l
Zinc powder - zinc dust (stabilized), CAS: 7440-66-6
LC50, (96h), Oncorhynchus mykiss, 0.169 mg Zn/L
IC50, (48h), Selenastrum capricornutum, 0.136 mg Zn/L
Pentan-2-one oxime, CAS: 623-40-5
EC50, (72h), Pseudokirchneriella subcapitata, 54-88 mg/L
NOEC, (96h), Oncorhynchus mykiss, ca. 100 mg/L
NOEC, (48h), Daphnia magna, >= 100 mg/L
NOEC, (72h), Pseudokirchneriella subcapitata, 32 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 Other adverse effects

Ecotoxicological data are not available.
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Waste no. (recommended) 160504* gases in pressure containers (including halons) containing dangerous substances

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID	1950
Inland navigation (ADN)	1950
Marine transport in accordance with IMDG	1950
Air transport in accordance with IATA	1950

14.2 UN proper shipping name

Transport by land according to ADR/RID	Aerosols
- Classification Code	5F
- Label	
- ADR LQ	1 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)
Inland navigation (ADN)	Aerosols
- Classification Code	5F
- Label	
Marine transport in accordance with IMDG	Aerosols (Zinc metal powder)
- EMS	F-D, S-U
- Label	
- IMDG LQ	1 l
Air transport in accordance with IATA	Aerosols, flammable
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	2
Inland navigation (ADN)	2
Marine transport in accordance with IMDG	2.1
Air transport in accordance with IATA	2.1

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	yes
Inland navigation (ADN)	yes
Marine transport in accordance with IMDG	MARINE POLLUTANT
Air transport in accordance with IATA	yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are restricted.
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for young people. Observe employment restrictions for mothers-to-be and nursing mothers.
- VOC (2010/75/CE)	67 %

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H412 Harmful to aquatic life with long lasting effects.
H373 May cause damage to organs through prolonged or repeated exposure.
H302 Harmful if swallowed.
H411 Toxic to aquatic life with long lasting effects.

H373 May cause damage to organs through prolonged or repeated exposure through inhalation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H304 May be fatal if swallowed and enters airways.
H312+H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H225 Highly flammable liquid and vapour.
EUH066 Repeated exposure may cause skin dryness or cracking.
H336 May cause drowsiness or dizziness.
H226 Flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H220 Extremely flammable gas.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229 Pressurised container: May burst if heated. (Bridging principle "Aerosols")
STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
Aquatic Acute 1: H400 Very toxic to aquatic life. (Calculation method)
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects. (Calculation method)
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (Bridging principle "Aerosols")
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)

Modified position

SECTION 3 deleted: Acetone

SECTION 3 been added: Pentan-2-one oxime

SECTION 3 been added: Hydrocarbons, C9, aromatics

SECTION 3 been added: Reaction mass of ethylbenzene and xylene

SECTION 3 been added: Acetone

SECTION 3 been added: n-Butyl acetate

SECTION 3 been added: Zinc powder - zinc dust (stabilized)

SECTION 2 been added: Reaction mass of ethylbenzene and xylene

SECTION 3 deleted: Xylene, mixture of isomers

SECTION 3 deleted: Hydrocarbons, C9, aromatics

SECTION 3 deleted: n-Butyl acetate

SECTION 3 deleted: Zinc powder - zinc dust (stabilized)

SECTION 2 been added: Hydrocarbons, C9, aromatics

SECTION 2 been added: Asp. Tox. 1

SECTION 2 been added: health hazard

SECTION 2 been added: P280 Wear protective gloves / protective clothing / eye protection / face protection.

SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.

SECTION 2 been added: Skin Irrit. 2

SECTION 2 been added: H315 Causes skin irritation.

SECTION 2 been added: STOT RE 2

SECTION 2 been added: H373 May cause damage to organs through prolonged or repeated exposure.

SECTION 2 deleted: P280 Wear eye protection.

SECTION 4 been added: In the event of symptoms seek medical treatment.

SECTION 4 been added: Rinse mouth.

SECTION 8 been added: Short term: combination filter AX-P2. (DIN EN 14387)

SECTION 8 deleted: Short term: filter apparatus, filter AX (DIN EN 14387).

SECTION 9 been added: not applicable

SECTION 9 deleted:

SECTION 9 deleted:

SECTION 9 been added: not applicable

SECTION 9 deleted: not applicable

SECTION 9 been added: yes

SECTION 9 been added: liquid

SECTION 9 deleted:

SECTION 10 been added: Strong bases.

SECTION 10 been added: Strong acids.

SECTION 11 been added: May be fatal if swallowed and enters airways.

SECTION 11 deleted: Based on available data, the classification criteria are not met.

SECTION 11 deleted: Based on available data, the classification criteria are not met.

SECTION 11 been added: Does not contain a relevant substance that meets the classification criteria.

SECTION 11 been added: May cause damage to organs through prolonged or repeated exposure.

SECTION 12 been added: Does not contain a relevant substance that meets the classification criteria.

SECTION 16 deleted:

SECTION 16 been added: Calculation method

SECTION 16 been added: Calculation method