



SAFETY DATA SHEET

according to 1907/2006/EG, Article 31

Product: **Dosenemulsion**

Page: 1 of 12
revised on: 18.12.23
replaces version: 19.10.20

SECTION 1: Designation of the substance or mixture and of the company

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1.1 Product identifier

Trade name: Dosenemulsion
UFI: 2P20-20DR-U00M-C358

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

Relevant identified use: Asphalt rehabilitation, sewer manhole rehabilitation
Uses advised against: No data available

1.3 Details of the supplier providing the safety data sheet

Manufacturer/supplier:
Company
VIALIT ASPHALT GesmbH & Co KG
Reiterstrasse 78
A - 5280 Braunau/ Inn

Telephone: +43 (0)7722/ 62977 - 0
Fax: +43 (0)7722/ 65758

Department providing information: Laboratory department, telephone: +43 (0)7722/ 62977 - 44;
Qualitaet@vialit.at This number is only manned during office hours.

1.4 Emergency information For Austria: Poisoning Information Centre, telephone: +43 (0)1/ 4064343

SECTION 2: Possible hazards

2.1 Classification according to Regulation 1272/2008/EG (CLP)

Special hazard warnings:

H-sets: H315
H319
H412

P-sets: P273
P280
P303+P361+P353
P305+P351+P338

Other information

Full text of the codes, hazard statements and EU hazard statements in SECTION 16.

2.2 Labelling elements (Regulation 1272/2008/EC (CLP))

Signal word : Attention

H-phrases: H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful for water organisms, with long-term effect.P-phrases: P273 Avoid release in the environment.
P280 Wear protective gloves/protective clothing/eye protection/face shield.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**2.3 Other hazards**PBT: not applicable.
vPvB: not applicable.
Endocrine disrupting properties: not applicable**SECTION 3: Composition/information on ingredients** ***3.1 Substances**

Not applicable, product is a mixture

3.2 Mixture

Hazardous ingredients:

Ingredient	(REGULATION (EC) No 1272/2008)	CAS number EINECS number REACH registration number
< 1.0 % N-[2-(piperazin-1-yl)ethyl]C18- insaturated-alkylamide	Acute tox 4 ; H302 Skin corr. 1B ; H314 Skin sens. 1A ; H317 Aquatic acute 1: H400 Aquatic chronic 1 ; H410 M-factor = 1	1228186-18-2 629-767-5 01-2119491298-25-0003

SECTION 4: First aid measures ***4.1 Description of first aid measures**

General information:

Always assess the safety of the accident site before attempting to rescue casualties and provide first aid.

After inhalation:

Not relevant

After contact with skin:

Wash with soap and water, remove residues with cooking oil.

After contact with eyes:

Rinse with water for a few minutes with the eyelids open.

After ingestion:

Consult a doctor if symptoms persist.

Self-protection of the first aider:

No special instructions required.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Information on immediate medical assistance or specialised treatment

No information available

SECTION 5: Firefighting measures**5.1 Extinguishing agent****Suitable extinguishing agents:**

Foam, powder, water in spray jet

Unsuitable extinguishing agents:

Full water jet

5.2 Special hazards arising from the substance or mixture.

Thermal decomposition produces white to yellowish vapours of hydrocarbon compounds, lighter than air, as well as CO₂, CO, H₂S and SO_x.

5.3 Instructions for firefighting**Special firefighting procedures:**

No special procedures required.

Special protective equipment for firefighting:

Use self-contained breathing apparatus.

SECTION 6: Measures in the event of accidental release

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6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2 Environmental protection measures

Do not allow to enter waterways or drains.

6.3 Methods and material for retention and cleaning

Pick up with sand or sawdust and shear off.

6.4 Reference to other sections

See Section 13 for information on disposal.

SECTION 7: Handling and storage

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7.1 Protective measures for safe handling

Measures for preventing fires:

Keep away from direct sources of ignition.

Measures for preventing aerosol and dust formation:

Not relevant for this product.

Measures for protecting the environment:

Do not allow to enter waterways or drains.

Advice on general hygiene in the workplace:

Keep away from food and drink, do not eat, drink or smoke while working;
Wash hands before breaks and after work**7.2 Conditions for safe storage in consideration of incompatibilities**

Technical measures and storage conditions:

Store in frost-proof conditions.

Packaging materials:

Original container

Requirements for storage rooms and containers:

Keep material locked away.

Storage instructions:

No known intolerances.

Storage class:

10 according to VCI

Substances to be avoided:

Not relevant under normal storage conditions

Further information on storage conditions

Keep material well sealed.

7.3 Specific end uses

Specific use(s): 1.2; no further relevant information available.

SECTION 8: Exposure controls / personal protective equipment**8.1 Parameters to be monitored**Substance name: **Bitumen**

CAS no.: 8052-42-4

DNEL values workers

Long-term exposure - systemic effects:

Inhalative DNEL 2.88 mg/m³

Substance name: **N-[2-(piperazin-1-yl)ethyl]C18-insaturated-alkylamide**
CAS no.: 1228186-18- 2**DNEL values**

Worker

Long-term exposure - systemic effects:

Dermal DNEL 2.1 mg/kg KG/d

Inhalative DNEL 14.7 mg/m³**PNEC values**

10 mg/kg (soil)

50 mg/l (sewage treatment plants)

0.023 mg/kg (seawater sediment)

0.00002 mg/l (seawater)

0.23 mg/kg (freshwater sediment)

0.0002 mg/l (freshwater)

8.2 Exposure controls and monitoring

Suitable technical control equipment:

No special requirements

Personal protective equipment:

Eye protection:	Safety goggles
Skin protection:	Suitable work clothing
Hand protection:	Protective gloves (nitrile)
Respiratory protection:	Not required

Limitation and monitoring of environmental exposure:

Not applicable

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties

Aggregate state	liquid
Colour	brown
Odour	bitumen-like
Melting point/freezing point	n/d
Boiling point or start of boiling and boiling range	100 °C
Flammability	n/d
Lower explosion limit	n/a
Upper explosion limit	n/a
Flash point	n/d
Ignition temperature	n/d
Decomposition temperature	n/a
pH-value	1 – 2.5
Kinematic viscosity	10.2 – 102.4 mm ² /s (40 °C)
Solubility	highly miscible with water
Partition coefficient n-octanol/water (log value)	n/a
Vapour pressure	23 mbar (20 °C)
Density and/or relative density	0.98 kg/m ³
Relative vapour density	n/d
Particle properties	n/a

n/d = not determined

n/a = not applicable

9.2 Other information

No further safety-relevant information available

SECTION 10: Stability and reactivity

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10.1 Reactivity

No hazardous reactions are to be expected if used as intended.

10.2 Chemical stability

The product is stable under normal ambient conditions and under the temperature and pressure conditions to be expected during storage and handling.

10.3 Possibility of hazardous reactions

No hazardous reactions known if handled as directed.

10.4 Conditions to avoid

No conditions known to be avoided if handled as directed.

10.5 Incompatible materials

Has a strong oxidising effect on metals due to the low pH value and the water content.

10.6 Hazardous decomposition products

No hazardous decomposition products known, if handled as directed and moderately heated.

SECTION 11: Toxicological information

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11.1 Information on toxicological effects

Acute toxicity:

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

N-[2-(piperazin-1-yl)ethyl]C18-insaturated-alkylamide:

Acute oral: LD50(rat): 1000 mg/kg

Bitumen:

Acute oral: LD50 rat
Dose: > 5,000 mg/kg
Method: OECD 401
Test substance: 64741-56-6

Acute inhalative: LC50 rat
Dose: > 94.4 mg/m³
Method: OECD 403
Test substance: Bitumen, vapour aerosol

Acute dermal: LD50 rabbit
Dose: > 2,000 mg/kg
Method: OECD 402
Test substance: 64741-56-6

Repeated dose toxicity:

NOAEC inhalative
Dose: 103.9 mg/m³ (systemic);
Method: OECD 413
Test substance: Mixture of 64742-93-4 and 64741-56-6, Form: Aerosol of oxidised bitumen vapour condensate; Based on available data, the product is not classified for specific target organ toxicity at repeated exposure.

NOAEL dermal; dose: >=2000 mg/kg/day (systemic);
Method: OECD 410, test substance: 64741-56-6, form: semi-solid;

Corrosive/irritant effect on the skin:

Causes skin irritation.

Severe eye damage/irritation:

Causes serious eye irritation

Sensitisation of the respiratory tract/skin:

May cause allergic reactions.

Bitumen:

Sensitisation of the skin	Guinea pig Result: not sensitising Method: OECD 406 Test substance: 64741-56-6 Form: semi-solid;
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Germ cell mutagenicity:

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

Bitumen:

Genotoxicity in vitro	Ames test Result: negative with metabolic activation Method: modified Ames test according to ASTM E 1687 Test substance: 8052-42-4
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Carcinogenicity:

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

Bitumen:

Carcinogenic effect	Rat Test substance: Mixture of 64742-93-4 and 64741-56-6 Method: OECD 451 Inhalation; NOAEC (carcinogenic): > 103.9 mg/m ³ Chronic
	Mouse Test substance: 8052-42-4 Method: OECD 453 dermal Result: negative Chronic

Reproductive toxicity:

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

Bitumen:

Reproductive toxicity/fertility: Test substance: Asphalt, oxidised
Method: OECD 422
NOAEC inhalation: 300 mg/m³ (CSA) Form: Vapour condensate;

Reproductive toxicity/teratogenicity: Test substance: Asphalt, oxidised
Method: OECD Guideline 422
NOAEC; Dose 300 mg/m³ (subchronic rat) Inhalation; Form: Vapour condensate;

Specific target organ toxicity at single exposure:

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

Specific target organ toxicity with repeated exposure:

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

Danger of aspiration:

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

11.2 Further information:

The classification was carried out according to the calculation method of the Preparations Directive.

SECTION 12: Environmental information**12.1 Toxicity**

No further relevant data available

N-[2-(piperazin-1-yl)ethyl]C18-insaturated-alkylamide:

Acute toxicity to fish: LC50(Brachydanio rerio)
Dose: 0.33 mg/l
Exposure time: 96 h

Acute toxicity to aquatic invertebrates: EC50(Daphnia magna)
Dose: 0.44 mg/l
Exposure time: 48 h

NOFC(Daphnia magna)
Dose: 0.37 mg/l
Exposure time: 21 h

Algae toxicity: NOEC(Pseudokirchneriella subcapitata)
Dose: 0.037 mg/l
Exposure time: 72h

Bitumen:

Acute toxicity in fish:	LL50	Species: Oncorhynchus mykiss (rainbow trout) Dose: > 1,000 mg/l Exposure time: 96 h Test substance: Oxidised bitumen Method: QSAR
Acute toxicity to aquatic invertebrates:	LL50	Species: Daphnia magna (large water flea) Dose: > 1,000 mg/l Exposure time: 48 h Test substance: Oxidised bitumen Method: QSAR
Toxicity to algae and aquatic plants:	EL50	Species: Pseudokirchnerella subcapitata Dose: > 1,000 mg/l Exposure time: 72 h Test substance: Oxidised bitumen Method: (Q)SAR
Toxicity to microorganisms:	LL50	Species: Tetrahymena pyriformis Dose: > 1,000 mg/l Exposure time: 40 h Test substance: Oxidised bitumen Method: QSAR
Fish toxicity (chronic toxicity):	LL50	Species: Oncorhynchus mykiss (rainbow trout) Dose: > 1,000 mg/l Exposure time: 28 h Test substance: Oxidised bitumen Method: QSAR
Toxicity to daphnia and others Aquatic invertebrates (chronic toxicity):	NOEL	Species: Daphnia magna Dose: > 1,000 mg/l Exposure time: 21 h Test substance: Oxidised bitumen Method: QSAR

12.2 Persistence and degradability

N-[2-(piperazin-1-yl)ethyl]C18-insaturated-alkylamide
OECD 301 28d:36%
Not readily biodegradable.

Bitumen
Not readily biodegradable.

12.3 Bioaccumulative potential

Bitumen
Bioaccumulation is unlikely due to the high molecular weight.
Bioaccumulative potential (partition coefficient (n-octanol/water)): no data available

12.4 Mobility in soil

No further relevant data available

12.5 Results of the PBT and vPvB assessment

No further relevant data available

12.6 Endocrine disrupting properties

No further relevant data available

12.7 Other adverse effects

Water hazard class 2 (according to calculation rule for preparations AwSV)

SECTION 13: Notes on disposal

Product: After appropriate conditioning, subject to thermal treatment.

Packaging: Dispose of container in accordance with packaging regulations and national regulations.

Waste code: ÖNORM 2100, code number 54 407
EN waste catalogue: 17 03 02

SECTION 14: Transport details**14.1 UN number**

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard classes

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for the user

Not applicable.

14.7 Transport of bulk cargo by sea in accordance with IMO instruments

Not applicable.

SECTION 15: Legislation**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations**

REACH Regulation (EC) No. 1907/2006 as amended
CLP Regulation (EC) No 1272/2008 as amended
Water hazard class (Germany):WgK 2 (significantly hazardous to water)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

SECTION 16: Other information

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The information is based on the current state of knowledge and experience. This data sheet describes products with regard to safety requirements. The information does not have the meaning of a guarantee of properties.

Clear indication of changes:

Changes to the previous version are marked with the asterisk * in the right-hand margin.

Abbreviations and acronyms

(Q)SAR = Quantitative structure-activity relationship
ADN = European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR = Agreement on the International Carriage of Dangerous Goods by Road
AGW = limit value for exposure at the workplace
ASTM = International Standards Institute
ATE = acute toxicity estimate
AwSV = Ordinance on Installations for Handling Substances Hazardous to Water
BCF = bioconcentration factor
BGW = biological limit value
CAS No. = Chemical Abstracts Service Number
CLP = classification, labelling and packaging
Classification, labelling and packaging
CMR = carcinogen, mutagen or reproductive toxin
CSA = chemical safety assessment
CSR = chemical safety report
DMEL = derived exposure level with minimal impairment
DNEL = derived exposure level without impairment
EC50 = The effective concentration of a substance that causes 50% of the maximum possible reaction.
EC number = EINECS and ELINCS number (see also EINECS and ELINCS)
EINECS = European Inventory of Existing Commercial Substances
EL50 = effective level 50%
IATA = International Air Transport Association
IC50 = inhibitory concentration 50%
ICAO-TI = Technical Instructions for the Carriage of Dangerous Goods by Air
IMDG = International Maritime Dangerous Goods Code
Kow = octanol-water partition coefficient
Koc = organic soil carbon to water partition coefficient
LC50 = lethal concentration for 50% of a test population
LD50 = lethal dose for 50% of a test population (median lethal dose)
LGK = storage class
LL50 = lethal load 50%
LOAEC = lowest concentration with observable adverse effect
LOAEL = lowest observed adverse effect level
MAK = maximum workplace concentration
NOAEC = concentration with no observable adverse effect
NOAEL = dose with no observable adverse effect
NOEC = highest exposure concentration of a substance without observed effects
NOEL = highest dose of a substance with no observed effects
OECD = Organisation for Economic Co-operation and Development
PBT = persistent, bioaccumulative and toxic substance
PEC = estimated effect concentration

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PNEC = estimated no-effect concentration
RID = Regulations on the International Carriage of Dangerous Goods by Rail
QSAR = Quantitative/Qualitative Structure-Effect Relationship
SVHC = substances of very high concern
STEL = maximum workplace concentration (MAK) - short-term value
TLV = maximum workplace concentration (MAK)
TRGS = Technical Rules for Hazardous Substances
TWA = maximum workplace concentration (MAK) - daily average value
UVCB = substances with unknown or variable composition, complex reaction products and biological materials
VCI = German Chemical Industry Association
vPvB = very persistent and very bioaccumulative

Important literature references and data sources:

Information from our suppliers and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to prepare this safety data sheet.

Methods used for product categorisation:

The classification for health, physico-chemical and environmental hazards was derived from a combination of calculation methods and, if available, test data.

Full text of the H & P phrases referred to in items 2 and 3:

H302: Harmful if ingested.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause allergic skin reactions.
H319: Causes serious eye irritation.
H400: Very toxic to water organisms.
H410: Very toxic to water organisms with long-term effect.
H412: Harmful for water organisms, with long-term effect.

Notes on training courses:

Workers must be regularly trained in the safe handling of the products based on the information in the safety data sheet and the local conditions of the workplace.
National regulations on the training of employees in the handling of hazardous substances must be observed.