SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

DES-F (16059 N)

Version 1.0 Print Date 19.07.2022

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

1.1. Product identifier

Trade name	:	DES-F (16059 N)

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

Use of the Substance/Mixture	:	Biocidal product, Professional use
Uses advised against	:	All other uses except those stated above.

1.3. Details of the supplier of the safety data sheet

Company	:	Brenntag N.V. Nijverheidslaan 38 BE 8540 Deerlijk
Telephone	:	+32 (0)56 77 6944
Telefax	:	+32 (0)56 77 5711
E-mail address	:	info@brenntag.be
Responsible/issuing person	:	Master Data Administration
Company	:	Brenntag Nederland B.V. Donker Duyvisweg 44 NL 3316 BM Dordrecht
Telephone	:	+31 (0)78 65 44 944
Telefax	:	+31 (0)78 65 44 919
E-mail address	:	info@brenntag.nl
Responsible/issuing person	:	Master Data Administration

1.4. Emergency telephone number

Emergency telephone number	:	Belgium: Antipoison Center - Brussels TEL: +32(0)70 245 245 Netherland: National Poisoning Information Center - Bilthoven TEL: +31(0) 88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	**Hazard category**	**Target Organs**	**Hazard statements**
Acute toxicity (Oral)	Category 4	---	H302
Acute toxicity (Dermal)	Category 3	---	H311
Acute toxicity (Dermal)	Category 3	---	H331
Skin corrosion	Sub-category 1B	---	H314
Serious eye damage	Category 1	---	H318
Skin sensitisation	Category 1	---	H317
Germ cell mutagenicity	Category 2	---	H341
Carcinogenicity	Category 1B	---	H350
Specific target organ toxicity - single exposure	Category 2	Eyes, Central nervous system	H371

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects

Human Health : No further information available.

Physical and chemical hazards : No further information available.

Potential environmental effects : No further information available.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols :

Signal word : Danger

Hazard statements :

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H371	May cause damage to organs.

Precautionary statements

Prevention	:	P202	Do not handle until all safety precautions have been read and understood.
		P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/ protective clothing/ eye protection.
		P284	Wear respiratory protection.
Response	:	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Storage	:	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Additional Labelling:

EUH071 Corrosive to the respiratory tract.

Hazardous components which must be listed on the label:

- formaldehyde
- methanol

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)	
		Hazard class / Hazard category	Hazard statements
formaldehyde			
Index-No. : 605-001-00-5 CAS-No. : 50-00-0 EC-No. : 200-001-8 EU REACH-Reg. No. : 01-2119488953-20-xxxx	>= 30 - < 50	Acute Tox.2 Acute Tox.3 Acute Tox.3 Skin Corr.1B Eye Dam.1 Skin Sens.1A Muta.2 Carc.1B STOT SE3	H330 H301 H311 H314 H318 H317 H341 H350 H335
methanol			

Index-No.	: 603-001-00-X	>= 3 - < 10	Flam. Liq.2	H225
CAS-No.	: 67-56-1		Acute Tox.3	H331
EC-No.	: 200-659-6		Acute Tox.3	H311
EU REACH-Reg. No.	: 01-2119433307-44-xxxx		Acute Tox.3	H301
			STOT SE1	H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : First aider needs to protect himself. Remove from exposure, lie down. Take off all contaminated clothing immediately.

If inhaled : Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Oxygen, if needed. No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus. Call a physician immediately.

In case of skin contact : Wash off immediately with soap and plenty of water. Call a physician immediately.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.

If swallowed : Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms : See Section 11 for more detailed information on health effects and symptoms.

Effects : Extremely corrosive and destructive to tissue. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. See Section 11 for more detailed information on health effects and symptoms.

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

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Incomplete combustion may form toxic pyrolysis products.
Hazardous combustion products	:	Carbon monoxide, Carbon dioxide (CO2), The formation of caustic fumes is possible.

5.3. Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.Wear appropriate body protection (full protective suit)
Specific extinguishing methods	:	Control smoke with water spray.
Further advice	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Keep away unprotected persons. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

6.2. Environmental precautions

Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up	:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Keep in suitable, closed containers for disposal.
Further information	:	Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	:	Keep container tightly closed. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Use respirator with appropriate filter if vapours or aerosol are released. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
Hygiene measures	:	Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Keep working clothes separately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Further information on storage conditions	:	Keep tightly closed in a dry and cool place. Keep in a well-ventilated place.
Advice on common storage	:	Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

Specific use(s)	:	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component:	formaldehyde	CAS-No. 50-00-0
Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)		

DNEL
Workers, Long-term - systemic effects, Inhalation : 9 mg/m3

DNEL
Workers, Long-term - local effects, Inhalation : 0,375 mg/m3

DNEL
Workers, Acute - local effects, Inhalation : 0,75 mg/m3

DNEL
Workers, Long-term - systemic effects, Dermal : 240 mg/kg bw/day

DNEL
Workers, Long-term - local effects, Dermal : 0,037 mg/cm2

DNEL
Consumers, Long-term - systemic effects, Inhalation : 3,2 mg/m3

DNEL
Consumers, Long-term - local effects, Inhalation : 0,1 mg/m3

DNEL
Consumers, Long-term - systemic effects, Dermal : 102 mg/kg bw/day

DNEL
Consumers, Long-term - local effects, Dermal : 0,012 mg/cm2

DNEL
Consumers, Long-term - systemic effects, Oral : 4,1 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

Fresh water	:	0,44 mg/l
Marine water	:	0,44 mg/l
Intermittent releases	:	4,44 mg/l
Sewage treatment plant (STP)	:	0,19 mg/l
Fresh water sediment	:	2,3 mg/kg
Marine sediment	:	2,3 mg/kg
Soil	:	0,2 mg/kg

Other Occupational Exposure Limit Values

Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended, Short Term Exposure Limit (STEL):
0,3 ppm, 0,38 mg/m3, (15 minutes)

Netherlands. OELs (binding), as amended, Short Term Exposure Limit (STEL):
0,5 mg/m3, (15 minutes)

Netherlands. OELs (binding), as amended, Time Weighted Average (TWA):
0,15 mg/m3

Component:	methanol	CAS-No. 67-56-1

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL
Workers, Acute - systemic effects, Skin contact : 40 mg/kg bw/day

DNEL
Workers, Acute - systemic effects, Inhalation : 260 mg/m3

DNEL
Workers, Acute - local effects, Inhalation : 260 mg/m3

DNEL
Workers, Long-term - systemic effects, Skin contact : 40 mg/kg bw/day

DNEL
Workers, Long-term - systemic effects, Inhalation : 260 mg/m3

DNEL
Workers, Long-term - local effects, Inhalation : 260 mg/m3

DNEL
Consumers, Acute - systemic effects, Skin contact : 8 mg/kg bw/day

DNEL
Consumers, Acute - systemic effects, Inhalation : 50 mg/m3

DNEL
Consumers, Acute - systemic effects, Ingestion : 8 mg/kg bw/day

DNEL
Consumers, Long-term - local effects, Inhalation : 50 mg/m3

DNEL
Consumers, Long-term - systemic effects, Ingestion : 8 mg/kg bw/day

DNEL
Consumers, Long-term - systemic effects, Inhalation : 50 mg/m3

DNEL
Consumers, Long-term - systemic effects, Skin contact : 8 mg/kg bw/day

DNEL
Consumers, Acute - local effects, Inhalation : 50 mg/m3

Predicted No Effect Concentration (PNEC)

Fresh water : 154 mg/l

Marine water	:	15,4 mg/l
Sediment	:	570,4 mg/kg dry weight (d.w.)
Soil	:	23,5 mg/kg wwt
Sewage treatment plant (STP)	:	100 mg/l
Intermittent releases	:	1540 mg/l

Other Occupational Exposure Limit Values

EU. Indicative Occupational Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, as amended, Time Weighted Average (TWA):
200 ppm, 260 mg/m3
Indicative

Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended, Time Weighted Average (TWA):
200 ppm, 266 mg/m3

Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended, Skin designation:
Can be absorbed through the skin.

Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended, Short Term Exposure Limit (STEL):
250 ppm, 333 mg/m3, (15 minutes)

Netherlands. OELs (binding), as amended, Skin designation:
Can be absorbed through the skin.

Netherlands. OELs (binding), as amended, Time Weighted Average (TWA):
133 mg/m3

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice	:	In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use self-contained breathing apparatus. Respiratory protection complying with EN 141.

Hand protection

Advice	:	Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Protective gloves should be replaced at first signs of wear.

Eye protection

Advice	:	Safety goggles Face-shield

Skin and body protection

Advice	:	Impervious clothing Chemical resistant apron

Environmental exposure controls

General advice	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	:	liquid
Colour	:	colourlessclear
Odour	:	formaldehyde-like strong
Odour Threshold	:	0,5 ppm
pH	:	2,8 - 4
Freezing point	:	no data available
Boiling point/boiling range	:	95,9 °C
Flash point	:	67 °C (closed cup
Evaporation rate	:	no data available
Flammability (solid, gas)	:	no data available

Upper explosion limit	:	73 %(V)
Lower explosion limit	:	7 %(V)
Vapour pressure	:	31 hPa
Relative vapour density	:	no data available
Relative density	:	1,04 (Reference: (Air = 1.0))
Density	:	1,065 - 1,105 g/cm3
Solubility/qualitative	:	no data available
Partition coefficient: n-octanol/water	:	log Kow 0,35
Auto-ignition temperature	:	430 °C
Thermal decomposition	:	no data available
Viscosity, dynamic	:	2,2 mPa.s (20 °C)
Explosivity	:	no data available
Oxidizing properties	:	no data available

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No specific test data related to reactivity available for this product or its ingredients.

10.2. Chemical stability

Advice : Polymerizes at temperatures below the recommended storage temperature. Polymer precipitation can occur when cooling.

10.3. Possibility of hazardous reactions

Hazardous reactions : Exothermic reaction with: Amines Ammonia Phenol

10.4. Conditions to avoid

Conditions to avoid : No specific data.

10.5. Incompatible materials

Materials to avoid : Amines, Ammonia, Phenol

10.6. Hazardous decomposition products

Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Data for the product		
Acute toxicity		
Oral		
Acute toxicity estimate	:	212,77 mg/kg) (Calculation method)Harmful if swallowed.
Inhalation		
Acute toxicity estimate	:	1,28 mg/l (4 h; vapour) (Calculation method)Toxic if inhaled.
Dermal		
Acute toxicity estimate	:	586,32 mg/kg) (Calculation method)Toxic in contact with skin.
Irritation		
Skin		
Result	:	Causes severe skin burns and eye damage.
Eyes		
Result	:	Causes serious eye damage.
Sensitisation		
Result	:	May cause an allergic skin reaction.
CMR effects		
CMR Properties		
Carcinogenicity	:	May cause cancer.
Mutagenicity	:	Suspected of causing genetic defects.
Teratogenicity	:	Based on available data, the classification criteria are not met.
Reproductive toxicity	:	no data available
Specific Target Organ Toxicity		
Single exposure		
Remarks	:	May cause damage to organs.
Repeated exposure		

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

Other toxic properties

Repeated dose toxicity

no data available

Aspiration hazard

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

Component:	**formaldehyde**	**CAS-No. 50-00-0**

Acute toxicity

Oral

Acute toxicity estimate	:	100 mg/kg (Rat) (Expert judgement)

Inhalation

Acute toxicity estimate	:	100 ppm (4 h; gas) (Calculation method)

Dermal

LD50	:	270 mg/kg (Rabbit)

Irritation

Skin

Result	:	Corrosive (Rabbit) (OECD Test Guideline 404)

Eyes

Result	:	Irreversible damage. (Rabbit)

Sensitisation

Result	:	Causes sensitisation. (Local lymph node test; Dermal; Mouse) (OECD Test Guideline 429)

CMR effects

Carcinogenicity

(positive, Rat)(Inhalation; 28 Months)

CMR Properties

Carcinogenicity	:	Animal testing showed carcinogenic effects.
Mutagenicity	:	In vitro tests showed mutagenic effects In vivo tests showed mutagenic effects
Teratogenicity	:	no data available
Reproductive toxicity	:	Based on available data, the classification criteria are not met.

Genotoxicity in vitro

Result	:	positive (Bacterial Reverse Mutation Test) (OECD Test Guideline 471) positive (Chromosome aberration test in vitro)

Genotoxicity in vivo

Result	:	positive (In vivo micronucleus test; Rat) (by inhalation;)

Teratogenicity

(Embryo-foetal development; Rat)(inhalation (gas))negative

Specific Target Organ Toxicity

Single exposure

Remarks	:	May cause respiratory irritation.

Repeated exposure

Remarks	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties

Repeated dose toxicity

NOAEL	:	6 ppm
LOAEL	:	10 ppm (Rat)(Inhalation; 28-day)

Aspiration hazard

No aspiration toxicity classification,

Component:	methanol	CAS-No. 67-56-1

Acute toxicity

Oral

Toxic if swallowed.

Inhalation

Toxic if inhaled.

Dermal

Toxic in contact with skin.

Irritation

Skin

Result : No skin irritation (Rabbit) (BASF - Test)

Eyes

Result : No eye irritation (Rabbit) (OECD Test Guideline 405)

Sensitisation

Result : not sensitizing (Maximisation Test; Guinea pig) (OECD Test Guideline 406)

CMR effects

CMR Properties

Carcinogenicity : Animal testing did not show any carcinogenic effects.
Mutagenicity : In vitro tests did not show mutagenic effects
In vivo tests did not show mutagenic effects
Teratogenicity : Not classified due to data which are conclusive although insufficient
Reproductive toxicity : Not classified due to data which are conclusive although insufficient

Genotoxicity in vivo

Result : negative (in vivo assay; Mammalian-Animal)

Teratogenicity

NOAEL Teratog.	:	1,3 mg/L (Rat)
NOAEL Teratog.	:	2,39 mg/L (Monkey)

Reproductive toxicity

NOAEL Parent	:	1,33 mg/L (Rat)

Specific Target Organ Toxicity

Single exposure

Remarks	:	Target Organs: Eyes, Central nervous systemCauses damage to organs.Experience with human exposure

Repeated exposure

Remarks	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties

Repeated dose toxicity

LOAEL	:	2340 mg/kg bw/day (Monkey, male)(Oral) (No guideline available); Subacute toxicity
NOAEL	:	1,06 mg/l (Rat)(Inhalation)

Aspiration hazard

No aspiration toxicity classification,

Further information

Other relevant toxicity information	:	Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Danger by skin absorption. Effects due to ingestion may include: Risk of blindness! Vomiting Nausea

Coma

SECTION 12: Ecological information

12.1. Toxicity

Data for the product		
Acute toxicity		
Short-term (acute) aquatic hazard		
Result	:	Based on available data, the classification criteria are not met.
Chronic toxicity		
Long-term (chronic) aquatic hazard		
Result	:	Based on available data, the classification criteria are not met.

Component:	**formaldehyde**	**CAS-No. 50-00-0**
Acute toxicity		
Fish		
LC50	:	6,7 mg/l (Morone saxatilis (Striped bass); 96 h) (static test; No guideline followed)
Toxicity to daphnia and other aquatic invertebrates		
EC50	:	5,8 mg/l (Daphnia pulex (Water flea); 48 h) (OECD Test Guideline 202)
algae		
EC50	:	4,89 mg/l (Desmodesmus subspicatus; 72 h) (OECD Test Guideline 201)
Bacteria		
EC50	:	34,1 mg/l (Microorganisms; 120 h)
Chronic toxicity		
Fish		

NOEC	:	>= 48 mg/l (Oryzias latipes (Orange-red killifish); 28 d)

Aquatic invertebrates		
NOEC		>= 6,4 mg/l (Daphnia magna (Water flea); 21 d) (OECD Test Guideline 211)

Component:	methanol	CAS-No. 67-56-1

Acute toxicity		

Fish		
LC50	:	15.400 mg/l (Lepomis macrochirus; 96 h) (flow-through test; EPA 600/3-75/009)

Toxicity to daphnia and other aquatic invertebrates		
EC50	:	> 1.000 mg/l (Daphnia magna (Water flea); 48 h) (OECD Test Guideline 202)

algae		
EC50	:	22000 mg/l (Pseudokirchneriella subcapitata (green algae); 96 h)

Bacteria		
EC50	:	20000 mg/l (Bacteria; 15 h)
IC50		1000 mg/l (Bacteria; 24 h)
IC50		> 1000 mg/l (activated sludge; 3 h)

Chronic toxicity		

Fish		
NOEC	:	7900 mg/l (fish; 200 h)

12.2. Persistence and degradability

Data for the product
Persistence and degradability
Biodegradability

Result	:	Readily biodegradable

Component:	formaldehyde	CAS-No. 50-00-0

Persistence and degradability

Persistence

Result	:	no data available

Biodegradability

Result	:	91 % (aerobic; activated sludge; Exposure Time: 14 d)(OECD Test Guideline 301C)Readily biodegradable.Read-across (Analogy)

Component:	methanol	CAS-No. 67-56-1

Persistence and degradability

Persistence

Result	:	study scientifically unjustified

Biodegradability

Result	:	97 % (Marine water; Exposure Time: 20 d)Readily biodegradable.
Result	:	95 % (Fresh water; Exposure Time: 20 d)
Result	:	83 - 91 % (Fresh water sediment; Exposure Time: 3 d)
Result	:	71,5 % (Fresh water; Exposure Time: 5 d)
Result	:	69 % (Marine water; Exposure Time: 5 d)
Result	:	46,3 - 53,5 % (Soil; Exposure Time: 5 d)

12.3. Bioaccumulative potential

Data for the product

Bioaccumulation

Result	:	The product has low potential bioaccumulation.

Component:	formaldehyde	CAS-No. 50-00-0

Bioaccumulation

Result	:	log Kow 0,35 (25 °C) (Program KOWWIN)
	:	Does not bioaccumulate.

Component:	methanol	CAS-No. 67-56-1

Bioaccumulation

Result : log Kow -0,77
: BCF: < 10; The product has low potential bioaccumulation.

12.4. Mobility in soil

Data for the product
Mobility

Result : no data available

Component:	formaldehyde	CAS-No. 50-00-0
Mobility		

: no data available

Component:	methanol	CAS-No. 67-56-1
Mobility		

: The product is mobile in water enviroment.

12.5. Results of PBT and vPvB assessment

Data for the product
Results of PBT and vPvB assessment

Result : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Component:	formaldehyde	CAS-No. 50-00-0
Results of PBT and vPvB assessment		

Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Component:	methanol	CAS-No. 67-56-1
Results of PBT and vPvB assessment		

Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Data for the product

Additional ecological information		
Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Harmful effects to aquatic organisms due to pH-shift.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
Contaminated packaging	:	Empty remaining contents. Packagings that cannot be cleaned are to be disposed of in the same manner as the product. Dispose of in accordance with local regulations.
European Waste Catalogue Number	:	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

14.1. UN number

2209

14.2. UN proper shipping name

ADR : FORMALDEHYDE SOLUTION
RID : FORMALDEHYDE SOLUTION
IMDG : FORMALDEHYDE SOLUTION

14.3. Transport hazard class(es)

ADR-Class (Labels; Classification Code; Hazard Identification Number; Tunnel restriction code)	:	8 8; C9; 80; (E)
RID-Class (Labels; Classification Code; Hazard Identification Number)	:	8 8; C9; 80
IMDG-Class (Labels; EmS)	:	8 8; F-A, S-B

14.4. Packaging group

ADR : III
RID : III

IMDG : III

14.5. Environmental hazards

Environmentally hazardous according to ADR	: no
Environmentally hazardous according to RID	: no
Marine Pollutant according to IMDG-Code	: no

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IMDG : Not applicable.

SECTION 15: Regulatory information

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

Data for the product

EU. Directive 2012/18/EU (SEVESO III) Annex I	:	Lower-tier requirements: 50 tonnes; Part 1: Categories of dangerous substances; H2: ACUTE TOXIC (Category 2, all exposure routes; Category 3, inhalation) Upper-tier requirements: 200 tonnes; Part 1: Categories of dangerous substances; H2: ACUTE TOXIC (Category 2, all exposure routes; Category 3, inhalation)

Component:	**formaldehyde**	**CAS-No. 50-00-0**

EU. Regulation EU No. 649/2012 concerning the export and import of dangerous chemicals	:	; The substance/mixture does not fall under this legislation.
EU. REACH, Annex XVII, Appendix 1, Entry 28 - Carcinogens: Category 1B (CLP Table 3 of Anx VI). (Reg. 1907/2006/EC)	:	, 200-001-8; Carcinogenicity; Category 1B
EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC)		Point Nos.: , 28; Listed
EU. Regulation No 1451/2007 [Biocides],	:	EC Number: , 200-001-8; Listed

Annex I, OJ (L 325)

EU. Regulation No. 1223/2009 on cosmetic products, Annex III: List of Restricted Substances in Cosmetic Products	:	Maximum concentration in ready for use preparation: 5 %; Nail hardening products; See the text of the regulation for applicable exceptions or provisions.
EU. Regulation No. 1223/2009 on cosmetic products, Annex V: List of Preservatives Allowed in Cosmetic Products		Maximum concentration in ready for use preparation: 0,1 % 5; Oral products; See the text of the regulation for applicable exceptions or provisions.
		Maximum concentration in ready for use preparation: 0,2 % 5; Products other than oral products; See the text of the regulation for applicable exceptions or provisions.
EU. Directive 2012/18/EU (SEVESO III) Annex I	:	Upper-tier requirements: 50 tonnes; Part 2: Named dangerous substances; List ID 14: Formaldehyde (concentration ≥ 90%), see note 7 Lower-tier requirements: 5 tonnes; Part 2: Named dangerous substances; List ID 14: Formaldehyde (concentration ≥ 90%), see note 7
EU. Directive 90/394/EEC	:	Hazard Designation: ; Carcinogen/Mutagen
Belgium. OELs. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1, as amended	:	Hazard Designation: ; Irritant
Netherlands. Carcinogenic substances and processes	:	Hazard Designation: ; Carcinogenic

Component:	**methanol**	**CAS-No. 67-56-1**

EU. Regulation EU No. 649/2012 concerning the export and import of dangerous chemicals	:	; The substance/mixture does not fall under this legislation.

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC)	:	Point Nos.: , 3; Listed Point Nos.: , 40; Listed Point Nos.: , 69; Listed
EU. Regulation No. 1223/2009 on cosmetic products, Annex III: List of Restricted Substances in Cosmetic Products	:	Maximum concentration in ready for use preparation: 5 %; Denaturant for ethanol and isopropyl alcohol; See the text of the regulation for applicable exceptions or provisions.
EU. Directive 2012/18/EU (SEVESO III) Annex I	:	Lower-tier requirements: 500 tonnes; Part 2: Named dangerous substances; List ID 22: Methanol Upper-tier requirements: 5.000 tonnes; Part 2: Named dangerous substances; List ID 22: Methanol

15.2. Chemical safety assessment

The chemical safety assessment of substances from this mixture has been done.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs.
H371	May cause damage to organs.

Abbreviations and Acronyms

AU AIICL	Australia. Industrial Chemicals Act (AIIC) List

BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
DSL	Canada. Environmental Protection Act, Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS (JP)	Japan. Kashin-Hou Law List
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IECSC	China. Inventory of Existing Chemical Substances
INSQ	Mexico. National Inventory of Chemical Substances
ISHL (JP)	Japan. Inventory of Industrial Safety & Health
KECI (KR)	Korea. Existing Chemicals Inventory
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NDSL	Canada. Environmental Protection Act. Non-Domestic Substances List
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
NZIOC	New Zealand. Inventory of Chemicals
OECD	Organisation for Economic Cooperation and Development

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	Restricted to professional users. Attention - Avoid

exposure - obtain special instructions before use.

The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.

The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

:

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The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

|| Indicates updated section.

DISTRIBUTOR COMPANY INFORMATION			
name	**BRENNTAG N.V.**	**BRENNTAG NEDERLAND B.V.**	**BRENNTAG SOUTH AFRICA (PTY) LTD**
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E-mail	Info.BE@brenntag.com	Info.NL@brenntag.com	Info.ZA@brenntag.com
Activities	Distribution and export of chemicals and ingredients		
VAT number	BE0405317567	NL001375945B01	4520105356
Emergemcy number (24/365)	+32 (0)56 77 69 44	+31 (0)78 65 44 944	+27 (0)10 0209100
Management systems: certifications	ISO9001, ISO22000, FSSC22000, GMP+Feed, ESAD, RSPO, Rainforest Alliance	ISO 9001, ISO 14001, ISO 22000, ISO22716, FSSC 22000, ISO45001, GMP+ Feed, ESAD, AEO, SKAL, RSPO, Rainforest Alliance	ISO9001, ISO45001, ISO14001, FSSC22000, Certificate of acceptability for Food Premises R638, Ecovadis Stustainability Rating (Platinum), SABS 1827, SABS 1853, B-BBEE, Rainforest Alliance, Sedex