SAFETY DATA SHEET

DOW DEUTSCHLAND ANLAGENGESELLSCHAFT MBH
Safety Data Sheet according to Reg. (EU) 2020/878

Product name: DOWSIL™ 375 Construction & Glass Embedding - part A, Polyol

Revision Date: 15.06.2021
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DOW DEUTSCHLAND ANLAGENGESELLSCHAFT MBH encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product name: DOWSIL™ 375 Construction & Glass Embedding - part A, Polyol
UFI: H5CG-M0E5-700C-99WD

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Component(s) for the manufacture of urethane polymers. For industrial use.

1.3 Details of the supplier of the safety data sheet
COMPANY IDENTIFICATION
DOW DEUTSCHLAND ANLAGENGESELLSCHAFT MBH
RHEINGAUSTR. 34
65201 WIESBADEN
GERMANY

Customer Information Number: (31) 115 67 2626
SDSQuestion@dow.com

1.4 EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 00 49 4146 91 2333
Local Emergency Contact: 0049 4141 3679

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:
Skin sensitisation - Category 1 - H317
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Hazard pictograms

Signal word: WARNING

Hazard statements

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing dust, fume, gas, mist, vapours and/or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents and/or container to an approved waste disposal plant.

Contains Fatty acids, C18-unsatd., trimers, compds. with oleylamine; Fatty Acids, Tall-Oil, compds. with Oleylamin

2.3 Other hazards

This product contains no substances assessed to be PBT or vPvB at levels of 0.1% or higher.

Endocrine disrupting properties

Environment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Human Health: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

This product is a mixture.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 1317-65-3 **EC-No.** 215-279-6	_	50,0 - < 70,0 %	Limestone	Not classified Acute toxicity estimate Acute oral toxicity:

Index-No. –				> 6 000 mg/kg Acute inhalation toxicity: > 3,0 mg/l, 4 Hour, dust/mist Acute dermal toxicity: > 2 000 mg/kg
CASRN Confidential **EC-No.** Confidential **Index-No.** –	_	25,0 - < 40,0 %	Ester	Not classified Acute toxicity estimate Acute oral toxicity: > 50 000 mg/kg Acute dermal toxicity: > 2 000 mg/kg
CASRN 1318-02-1 **EC-No.** 215-283-8 **Index-No.** –	01-2119429034-49	1,0 - < 5,0 %	Zeolites	Not classified Acute toxicity estimate Acute oral toxicity: > 5 000 mg/kg Acute inhalation toxicity: > 3,35 mg/l, 4 Hour, dust/mist Acute dermal toxicity: > 2 000 mg/kg
CASRN 147900-93-4 **EC-No.** 604-612-4 **Index-No.** –	01-2119971821-33	0,1 - < 1,0 %	Fatty acids, C18-unsatd., trimers, compds. with oleylamine	Acute Tox. 4; H302 Skin Sens. 1; H317 STOT RE 2; H373 Aquatic Chronic 2; H411
CASRN 85711-55-3 **EC-No.** 288-315-1 **Index-No.** –	01-2119974148-28	0,1 - < 1,0 %	Fatty Acids, Tall-Oil, compds. with Oleylamin	Eye Dam. 1; H318 Skin Sens. 1A; H317 STOT RE 2; H373 Acute toxicity estimate Acute oral toxicity: > 2 000 mg/kg

If present in this product, any not classified components disclosed above for which no country specific OEL value(s) is(are) indicated under Section 8, are being disclosed as voluntarily disclosed components.

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 Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation or rash occurs. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Eye contact: Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed:
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed
Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Water fog or fine spray.. Dry chemical fire extinguishers.. Carbon dioxide fire extinguishers.. Foam.. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective..

Unsuitable extinguishing media: Do not use direct water stream.. May spread fire..

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.. Combustion products may include and are not limited to:. Carbon monoxide.. Carbon dioxide..

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation.. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids..

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles.. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container.. Do not use direct water stream. May spread fire.. Move container from fire area if

this is possible without hazard.. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS..

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves).. Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location.. For protective equipment in post-fire or non-fire clean-up situations, see Section 8 of the safety data sheet..

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Isolate area. Refer to section 7, Handling, for additional precautionary measures. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up: Contain spilled material if possible. Absorb with materials such as: Dirt. Sand. Sawdust. Collect in suitable and properly labeled containers. Wash the spill site with water. See Section 13, Disposal Considerations, for additional information.

6.4 Reference to other sections: References to other sections, if applicable, have been provided in the previous sub-sections.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. This material is hygroscopic in nature. This material is not intended to be sprayed or to be heated. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.
Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

7.2 Conditions for safe storage, including any incompatibilities: Protect from atmospheric moisture. Store in a dry place. Avoid prolonged exposure to heat and air. Store in the following material(s): Carbon steel. Stainless steel. Polypropylene. Polyethylene-lined container. Teflon. Glass-lined container. Aluminum. Plasite 3066 lined container. Plasite 3070 lined container. 316 stainless steel. See Section 10 for more specific information.

Storage stability

Storage temperature:	**Storage Period:**
10 - 30 °C	12 Month

7.3 Specific end use(s): See the technical data sheet on this product for further information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
Limestone	Dow IHG	TWA	1 mg/m3
Zeolites	ACGIH	TWA Respirable particulate matter	1 mg/m3 , Aluminium
	Further information: A4: Not classifiable as a human carcinogen		

Recommended monitoring procedures

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with the Occupational Exposure Limits and the adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples should be analysed by an accredited laboratory.

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy); European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents); European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods.
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods.
Health and Safety Executive (HSE), United Kingdom: Methods for the Determination of Hazardous Substances.
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany.
L'Institut National de Recherche et de Securité, (INRS), France.

Derived No Effect Level

Zeolites

Workers

Acute systemic effects		*Acute local effects*		*Long-term systemic effects*		*Long-term local effects*	
Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	2,5 mg/kg bw/day	3,0 mg/m3	n.a.	n.a.

Consumers

Acute systemic effects			*Acute local effects*		*Long-term systemic effects*			*Long-term local effects*	
Dermal	Inhalation	Oral	Dermal	Inhalation	Dermal	Inhalation	Oral	Dermal	Inhalation

n.a.	n.a.	n.a.	n.a.	n.a.	1,25 mg/kg bw/day	n.a.	n.a.	n.a.	0,003 mg/m3

Fatty Acids, Tall-Oil, compds. with Oleylamin

Workers

Acute systemic effects		***Acute local effects***		***Long-term systemic effects***		***Long-term local effects***	
Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	0,024 mg/kg bw/day	n.a.	n.a.	n.a.

Consumers

Acute systemic effects			***Acute local effects***		***Long-term systemic effects***			***Long-term local effects***	
Dermal	Inhalation	Oral	Dermal	Inhalation	Dermal	Inhalation	Oral	Dermal	Inhalation
n.a.	n.a.	n.a.	n.a.	n.a.	0,012 mg/kg bw/day	n.a.	0,012 mg/kg bw/day	n.a.	n.a.

Predicted No Effect Concentration

Zeolites

Compartment	**PNEC**
Fresh water	3,2 mg/l
Marine water	0,320 mg/l
Sewage treatment plant	95 mg/l
Soil	600 mg/kg dry weight (d.w.)

Fatty Acids, Tall-Oil, compds. with Oleylamin

Compartment	**PNEC**
Oral	0,470 mg/kg food

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Skin protection

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate

("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Examples of acceptable glove barrier materials include: Neoprene. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.
Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

Environmental exposure controls
See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	
Physical state	viscous liquid to semi solid
Color	cream
Odor	characteristic
Odor Threshold	No test data available
pH	Not applicable, substance/mixture is non-polar/aprotic
Melting point/freezing point	
Melting point/range	No test data available
Freezing point	No test data available
Boiling point or initial boiling point and boiling range	

Boiling point (760 mmHg)	> 100 °C *Estimated.*
Flash point	**closed cup** >100 °C *Estimated.*
Flammability (solid, gas)	Not applicable, liquid
Flammability (liquids)	Not expected to be a static-accumulating flammable liquid.
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	very low
Relative Vapor Density (air = 1)	No test data available
Relative Density (water = 1)	1,59 - 1,63 at 20 °C / 20 °C *ASTM D891*
Solubility(ies)	
Water solubility	insoluble
Partition coefficient: n-octanol/water	not determined
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	7000 - 14000 mm2/s at 25 °C *ASTM D4878*
Particle characteristics	
Particle size	Not applicable, liquid

9.2 Other information

Molecular weight	No test data available
Explosive properties	Not explosive
Oxidizing properties	No
Evaporation Rate (Butyl Acetate = 1)	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

10.3 Possibility of hazardous reactions: Will not occur by itself.

10.4 Conditions to avoid: Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

10.5 Incompatible materials: Avoid contact with oxidizing materials. Avoid contact with: Strong acids. Strong bases. Avoid unintended contact with isocyanates. The reaction of polyols and isocyanates generates heat.

10.6 Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials.. Decomposition products can include and are not limited to:. Carbon dioxide.. Alcohols.. Ethers.. Hydrocarbons.. Ketones.. Polymer fragments..

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

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

Information on likely routes of exposure
Ingestion, Inhalation, Skin contact, Eye contact.

Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)

Acute oral toxicity
Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. May cause abdominal discomfort or diarrhea. May cause nausea and vomiting. The stimulant effects of this material are reportedly strong enough to induce uterine contractions in pregnant women.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):
LD50, > 2 000 mg/kg Estimated.

Information for components:

Limestone
LD50, Rat, > 6 000 mg/kg

Ester
May cause abdominal discomfort or diarrhea. May cause nausea and vomiting. The stimulant effects of this material are reportedly strong enough to induce uterine contractions in pregnant women. LD50, Guinea pig, > 50 000 mg/kg

Zeolites
Typical for this family of materials. LD50, Rat, > 5 000 mg/kg

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Single dose oral LD50 has not been determined.

Fatty Acids, Tall-Oil, compds. with Oleylamin
LD50, Rat, female, > 2 000 mg/kg OECD Test Guideline 423 No deaths occurred at this concentration.

Acute dermal toxicity
Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):
LD50, > 2 000 mg/kg Estimated.

Information for components:

Limestone
LD50, Rat, > 2 000 mg/kg No deaths occurred at this concentration.

Ester
LD50, Rat, > 2 000 mg/kg

Zeolites
Typical for this family of materials. LD50, Rabbit, > 2 000 mg/kg

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
The dermal LD50 has not been determined.

Fatty Acids, Tall-Oil, compds. with Oleylamin
The dermal LD50 has not been determined.

Acute inhalation toxicity
At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Vapor from heated material may cause respiratory irritation.

As product: The LC50 has not been determined.

Information for components:

Limestone
Maximum attainable concentration. LC50, Rat, 4 Hour, dust/mist, > 3,0 mg/l No deaths occurred at this concentration.

Ester
At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous.

The LC50 has not been determined.

Zeolites
Prolonged excessive exposure to dust may cause adverse effects. Dust may cause irritation to upper respiratory tract (nose and throat).

Typical for this family of materials. LC50, Rat, male and female, 4 Hour, dust/mist, > 3,35 mg/l No deaths occurred at this concentration.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
The LC50 has not been determined.

Fatty Acids, Tall-Oil, compds. with Oleylamin
The LC50 has not been determined.

Skin corrosion/irritation

Based on information for component(s):
Prolonged exposure not likely to cause significant skin irritation.

Information for components:

Limestone
Essentially nonirritating to skin.
May cause drying and flaking of the skin.

Ester
Prolonged exposure not likely to cause significant skin irritation.

Zeolites
Brief contact is essentially nonirritating to skin.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Brief contact is essentially nonirritating to skin.

Fatty Acids, Tall-Oil, compds. with Oleylamin
Brief contact may cause skin irritation with local redness.

Serious eye damage/eye irritation
Based on information for component(s):
May cause irritation or corneal injury due to mechanical action.

Information for components:

Limestone
May cause slight temporary eye irritation.
Dust may irritate eyes.

Ester
May cause slight temporary eye irritation.

Zeolites
Solid or dust may cause irritation or corneal injury due to mechanical action.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
May cause slight eye irritation.
Corneal injury is unlikely.

Fatty Acids, Tall-Oil, compds. with Oleylamin
May cause severe eye irritation.

Sensitization
For skin sensitization:
Contains component(s) which have demonstrated the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

Information for components:

Limestone
Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

Ester
For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

Zeolites
Did not cause allergic skin reactions when tested in humans.
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Skin contact may cause an allergic skin reaction.

For respiratory sensitization:
No relevant data found.

Fatty Acids, Tall-Oil, compds. with Oleylamin
Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Information for components:

Limestone
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Ester
Available data are inadequate to determine single exposure specific target organ toxicity.

Zeolites
Available data are inadequate to determine single exposure specific target organ toxicity.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Available data are inadequate to determine single exposure specific target organ toxicity.

Fatty Acids, Tall-Oil, compds. with Oleylamin
Available data are inadequate to determine single exposure specific target organ toxicity.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Information for components:

Limestone
Based on physical properties, not likely to be an aspiration hazard.

Ester
Based on physical properties, not likely to be an aspiration hazard.

Zeolites
Based on physical properties, not likely to be an aspiration hazard.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Based on physical properties, not likely to be an aspiration hazard.

Fatty Acids, Tall-Oil, compds. with Oleylamin
Based on available information, aspiration hazard could not be determined.

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)
No specific, relevant data available for assessment.

Information for components:

Limestone
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Ester
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Zeolites
Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
Repeated excessive exposure may cause adverse effects.

Fatty Acids, Tall-Oil, compds. with Oleylamin
In animals, effects have been reported on the following organs:
Gastrointestinal tract

Carcinogenicity
No specific, relevant data available for assessment.

Information for components:

Limestone
No relevant data found.

Ester
Available data are inadequate to evaluate carcinogenicity.

Zeolites
Did not cause cancer in laboratory animals.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
No relevant data found.

Fatty Acids, Tall-Oil, compds. with Oleylamin
No relevant data found.

Teratogenicity
No specific, relevant data available for assessment.

Information for components:

Limestone
Did not cause birth defects or any other fetal effects in laboratory animals.

Ester
No relevant data found.

Zeolites
Did not cause birth defects or any other fetal effects in laboratory animals.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
No relevant data found.

Fatty Acids, Tall-Oil, compds. with Oleylamin
No relevant data found.

Reproductive toxicity
No specific, relevant data available for assessment.

Information for components:

Limestone
In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

Ester
In animal studies, did not interfere with reproduction.

Zeolites
In animal studies, did not interfere with reproduction.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
No relevant data found.

Fatty Acids, Tall-Oil, compds. with Oleylamin
No relevant data found.

Mutagenicity
Genetic toxicity studies on tested components were predominantly negative.

Information for components:

Limestone
In vitro genetic toxicity studies were negative.

Ester
In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Zeolites
In vitro genetic toxicity studies were negative.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
No relevant data found.

Fatty Acids, Tall-Oil, compds. with Oleylamin
In vitro genetic toxicity studies were negative.

11.2 Information on other hazards

Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Information for components:

Limestone
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Ester
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Zeolites
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Fatty Acids, Tall-Oil, compds. with Oleylamin

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

12.1 Toxicity

Limestone

Acute toxicity to fish
Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).
LC50, Gambusia affinis (Mosquito fish), static test, 96 Hour, > 56 000 mg/l

Ester

Acute toxicity to fish
Not expected to be acutely toxic to aquatic organisms.

Zeolites

Acute toxicity to fish
Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).
LC50, Zebra fish (Danio/Brachydanio rerio), semi-static test, 96 Hour, 1 800 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), 48 Hour, 1 000 - 1 800 mg/l

Acute toxicity to algae/aquatic plants
ErC50, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate, 130 mg/l, OECD Test Guideline 201
NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate, 18 mg/l, OECD Test Guideline 201

Toxicity to bacteria
EC50, Pseudomonas putida, 16 Hour, 1 550 mg/l

Chronic toxicity to fish
NOEC, Fathead minnow (Pimephales promelas), flow-through test, 30 d, number of offspring, > 86,7 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 32 mg/l

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

Acute toxicity to fish
Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

Fatty Acids, Tall-Oil, compds. with Oleylamin

Acute toxicity to fish

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).
LL50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, > 100 mg/l, OECD Test Guideline 203

Acute toxicity to aquatic invertebrates

EL50, Daphnia magna (Water flea), static test, 48 Hour, 15,2 mg/l, OECD Test Guideline 202

12.2 Persistence and degradability

Limestone

Biodegradability: Biodegradation is not applicable.

Ester

Biodegradability: For the major component(s): Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Zeolites

Biodegradability: Biodegradation is not applicable.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

Biodegradability: No relevant data found.

Fatty Acids, Tall-Oil, compds. with Oleylamin

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass
Biodegradation: 87 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

12.3 Bioaccumulative potential

Limestone

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Ester

Bioaccumulation: No data available for this product. For the major component(s): Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Zeolites

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

Bioaccumulation: Bioconcentration potential is low (BCF less than 100 or log Pow greater than 7).
Partition coefficient: n-octanol/water(log Pow): 27,99

Fatty Acids, Tall-Oil, compds. with Oleylamin

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 4,21 OECD Test Guideline 117

12.4 Mobility in soil

Limestone

No relevant data found.

Ester

For the major component(s):
Potential for mobility in soil is low (Koc between 500 and 2000).
Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Zeolites

No relevant data found.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

Partition coefficient (Koc): > 5000

Fatty Acids, Tall-Oil, compds. with Oleylamin

OECD Test Guideline 121

12.5 Results of PBT and vPvB assessment

Limestone

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Ester

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Zeolites

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

Fatty Acids, Tall-Oil, compds. with Oleylamin

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Limestone

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Ester

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Zeolites

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

Fatty Acids, Tall-Oil, compds. with Oleylamin

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

12.7 Other adverse effects

Limestone

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Ester

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Zeolites

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Fatty acids, C18-unsatd., trimers, compds. with oleylamine

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

Fatty Acids, Tall-Oil, compds. with Oleylamin

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

SECTION 14: TRANSPORT INFORMATION

Classification for ROAD and Rail transport (ADR/RID):

14.1 UN number or ID number Not applicable

14.2	**UN proper shipping name**	Not regulated for transport
14.3	**Transport hazard class(es)**	Not applicable
14.4	**Packing group**	Not applicable
14.5	**Environmental hazards**	Not considered environmentally hazardous based on available data.
14.6	**Special precautions for user**	No data available.

Classification for INLAND waterways (ADNR/ADN):
Consult your Dow contact before transporting by inland waterway

Classification for SEA transport (IMO-IMDG):

14.1	**UN number or ID number**	Not applicable
14.2	**UN proper shipping name**	Not regulated for transport
14.3	**Transport hazard class(es)**	Not applicable
14.4	**Packing group**	Not applicable
14.5	**Environmental hazards**	Not considered as marine pollutant based on available data.
14.6	**Special precautions for user**	No data available.
14.7	**Maritime transport in bulk according to IMO instruments**	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

14.1	**UN number or ID number**	Not applicable
14.2	**UN proper shipping name**	Not regulated for transport
14.3	**Transport hazard class(es)**	Not applicable
14.4	**Packing group**	Not applicable
14.5	**Environmental hazards**	Not applicable
14.6	**Special precautions for user**	No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

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

REACh Regulation (EC) No 1907/2006
This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	Conditions of restriction for the following entries should be considered: Number on list 3

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Listed in Regulation: Not applicable

Wassergefährdungsklasse (Deutschland)
WGK 1: slightly hazardous to water

Further information
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment
No Chemical Safety Assessment has been carried out for this substance/mixture.

SECTION 16: OTHER INFORMATION

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

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008
Skin Sens. - 1 - H317 - Calculation method

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Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
TWA	Time weighted average
Acute Tox.	Acute toxicity
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Dam.	Serious eye damage
Skin Sens.	Skin sensitisation
STOT RE	Specific target organ toxicity - repeated exposure

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW DEUTSCHLAND ANLAGENGESELLSCHAFT MBH urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory

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