



SAFETY DATA SHEET

Aerolite UP-4145

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

1.1 Product identifier

Product name : Aerolite UP-4145

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

Use of the substance/
mixture : Industrial/ Professional Use: Adhesive. Woodworking industry.

1.3 Details of the supplier of the safety data sheet

Supplier : Dynea AS
P.O.Box 160, N-2001 Lillestrøm
Norway
Tel. +47 63897100
Fax. +47 63897610

e-mail address of person
responsible for this SDS : sds@dynea.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : Not available.

Supplier

Telephone number : +47 63897100

Hours of operation : 24 hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Eye Irrit. 2, H319

See Section 16 for the full text of the H statements declared above.

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

2.2 Label elements

Hazard pictograms :



Signal word : Warning

SECTION 2: Hazards identification

Hazard statements	: H319 - Causes serious eye irritation.
Precautionary statements	: P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.

Special packaging requirements

Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: May form explosible dust-air mixture if dispersed. Air contaminants may be formed during use of the product. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. Combustible.
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SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Kaolin	EC: 310-194-1 CAS: 1332-58-7	≥10 - ≤25	Not classified.	[2]
aluminium sulphate	REACH #: 01-2119615970-39 EC: 233-135-0 CAS: 10043-01-3	<3	Eye Dam. 1, H318	[1] [2]
methanol	REACH #: 01-2119433307-44 EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	≤0,3	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve) See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Move exposed person to fresh air. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe.
- General** : Move the victim to a safe area as soon as possible. If unconscious, place in recovery position and seek medical advice. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Allow the victim to rest in a well-ventilated area.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

No known significant effects or critical hazards.

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Ingestion** : May be irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use alcohol-resistant foam or water spray (mist).
- Unsuitable extinguishing media** : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Take precautionary measures against static discharges. May form explosible dust-air mixture if dispersed.

SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container.

Large spill : Approach release from upwind. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Avoid creating dusty conditions and prevent wind dispersal. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store away from incompatible materials (see Section 10). Eliminate all ignition sources. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep container dry.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Kaolin	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 2 mg/m ³ 8 hours. Form: Respirable dust
aluminium sulphate	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 2 mg/m ³ 8 hours.
methanol	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 333 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 266 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
formaldehyde	[Air contaminant] EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2,5 mg/m ³ 15 minutes. STEL: 2 ppm 15 minutes. TWA: 2 ppm 8 hours.

SECTION 8: Exposure controls/personal protectionTWA: 2,5 mg/m³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
aluminium sulphate	DNEL	Long term Inhalation	20,2 mg/m ³	Workers	Systemic
methanol	DNEL	Long term Oral	3,4 mg/m ³	Consumers	Systemic
	DNEL	Short term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m ³	Workers	Local
	DNEL	Long term Dermal	40 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	260 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	260 mg/m ³	Workers	Local
	DNEL	Short term Dermal	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	50 mg/m ³	Consumers	Systemic
	DNEL	Short term Oral	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	50 mg/m ³	Consumers	Local
	DNEL	Long term Dermal	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	50 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	8 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	50 mg/m ³	Consumers	Local

PNECs

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
aluminium sulphate	PNEC	Fresh water	0,3 µg/l	-
	PNEC	Marine	0,03 µg/l	-
	PNEC	Sewage Treatment Plant	20 mg/l	-
methanol	PNEC	Fresh water	20,8 mg/l	Assessment Factors
	PNEC	Marine	2,08 mg/l	Assessment Factors
	PNEC	Intermittent release	1540 mg/l	Assessment Factors
	PNEC	Fresh water sediment	77 mg/kg dwt	Equilibrium Partitioning
	PNEC	Soil	100 mg/kg wwt	Equilibrium Partitioning

SECTION 8: Exposure controls/personal protection

	PNEC PNEC	Marine water sediment Sewage Treatment Plant	7,7 mg/kg dwt 100 mg/l	Equilibrium Partitioning Assessment Factors
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8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Use eye protection according to EN 166, designed to protect against powders and dusts. Recommended: chemical splash goggles.

Hand protection : Wear suitable gloves tested to EN374. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers.
Recommended : Protective Index 6 / Breakthrough time >480 minutes: neoprene rubber 0.7 mm thickness or nitrile rubber 0.4 mm thickness

Other skin protection : Wear work clothing with long sleeves. Handling of product where, due to high pressure, speed or force, large quantities of dust are generated and dispersed. Wear dust-resistant protective clothing.
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. No personal respiratory protective equipment normally required.
Long Term Exposure / high concentrations : disposable particulate mask ; particulate filter (P3)
Short term exposure / Low exposure : disposable particulate mask ; particulate filter (P2)

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state : Solid. [Powder.]
Color : Grayish-white. [Light]
Odor : Formaldehyde. [Slight]
Odor threshold : Not available.

pH : 3 to 4,5 [Conc. (% w/w): 67%]
Melting point/freezing point : Not available.
Initial boiling point and boiling range : Not available.
Flash point : Not available.
Evaporation rate : Not available.

SECTION 9: Physical and chemical properties

Flammability (solid, gas)	: Not available.
Upper/lower flammability or explosive limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: Not available.
Bulk density	: 600 kg/m ³
Solubility	: Dispersible in water
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not applicable.
Explosive properties	: Fine dust clouds may form explosive mixtures with air.
Oxidizing properties	: Not available.

9.2 Other information

VOC content (Without volume exclusion)	: 0,27 % (w/w) 2,7 g/l
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SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. Prevent dust accumulation.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	: Formaldehyde may be released during processing.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Potential Adverse effects

No known significant effects or critical hazards.

Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Adverse symptoms may include the following:
respiratory tract irritation
coughing

May be irritating to mouth, throat and stomach.

SECTION 11: Toxicological information

Causes serious eye irritation.

Adverse symptoms may include the following:

pain or irritation

watering

redness

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
aluminium sulphate	LC50 Inhalation Vapor	Rat - Male, Female	5 mg/l	4 hours
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	-
methanol	LC50 Inhalation Vapor	Rat - Male, Female	128,2 mg/l	4 hours
	LD50 Dermal	Rabbit	17100 mg/kg	-

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

methanol: Toxic by inhalation, in contact with skin and if swallowed.

Acute toxicity estimates

Product	ATE value
Oral	48928 mg/kg
Dermal	146784,1 mg/kg
Inhalation (vapors)	1467,8 mg/l

**Product Conclusion/
Summary**

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
aluminium sulphate	Skin - Erythema/Eschar	Rabbit	0	4 hours 0.5ml	72 days
	Skin - Edema	Rabbit	0	4 hours 0.5ml	72 days
	Eyes - Cornea opacity	Rabbit	0	0.1ml	72 hours
	Eyes - Iris lesion	Rabbit	1	0.1ml	72 hours
	Eyes - Redness of the conjunctivae	Rabbit	1,56	0.1ml	72 hours
	Eyes - Edema of the conjunctivae	Rabbit	1,44	0.1ml	72 hours

Skin : **aluminium sulphate:** Based on available data, the classification criteria are not met.
methanol: Based on available data, the classification criteria are not met.

Eyes : **aluminium sulphate:** Irritating to eyes.
methanol: Based on available data, the classification criteria are not met.

**Product Conclusion/
Summary**

: Causes serious eye irritation.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
aluminium sulphate	skin	Guinea pig	Not sensitizing
methanol	Respiratory	Guinea pig	Not sensitizing
	skin	Guinea pig	Not sensitizing

Skin : **aluminium sulphate:** Not sensitizing
methanol: Not sensitizing

Respiratory : **methanol:** Not sensitizing

SECTION 11: Toxicological information

Product Conclusion/Summary : Based on available data, the classification criteria are not met.

Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
aluminium sulphate methanol	Sub-acute NOAEL Oral	Rat - Male	18 mg/kg Al3+	28 days; 7 days per week
	Sub-acute LOAEL Oral	Rat - Male	90 mg/kg Al3+	28 days; 7 days per week
	Sub-chronic LOAEC Inhalation Vapor	Rat - Male, Female	15,3 mg/m ³	90 days; 0,018 hours per day
	Chronic NOAEL Oral	Rat - Male, Female	466 to 529 mg/kg Repeated dose	104 weeks
	Chronic NOEC Inhalation Vapor	Rat - Male, Female	0,13 mg/l	12 months
	Chronic NOAEC Inhalation Vapor	Rat - Male, Female	1,3 mg/l Continuous	108 days
	Chronic NOAEC Inhalation Vapor	Rat	1,33 mg/l Continuous	17 days; 22,7 hours per day

Mutagenicity

Product/ingredient name	Test	Experiment	Result
aluminium sulphate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: + & -	Negative
	OECD 487 <i>In vitro</i> Micronucleus Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: + & -	Negative
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Metabolic activation: + & -	Negative

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

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

Product Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

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

Product Conclusion/Summary : Formaldehyde is classified as a category 1B carcinogen by EU (Suspected of causing cancer in humans). The classification is mainly based on carcinogenic effects demonstrated in animal experiments, but also on experience from occupational use indicating, but not proving, increased risk of cancer in humans. The actual risk is a rare type of cancer in the nasopharyngeal area (upper part of the throat, behind the nose).

Animal experiments have demonstrated that the cancer risk has a strong link to high and repeated doses of formaldehyde, with an effect threshold at 2 ppm. This is the basis for the derived no effect level (DNEL) for occupational use of 0,3 ppm. Exposure below this level gives limited or no risk of adverse effects.

Reproductive toxicity

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

Product Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

SECTION 11: Toxicological information

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

**Product Conclusion/
Summary**

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
methanol	Category 1	All	central nervous system (CNS) and optic nerve

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard**Product Conclusion/
Summary**

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

Interactive effects

: No specific data.

Other information

: No specific data.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
aluminium sulphate	EC50 14 mg/l Fresh water	Algae - Pseudokirchnerella	72 hours
	EC50 >1000 mg/l Fresh water	ubcapitata	Static
	Acute EC50 38 mg/l Fresh water	Micro-organism	3 hours
	Acute EC50 >200 mg/l Fresh water	Daphnia - Daphnia magna	Static
	Acute EC50 98 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 186 mg/l Fresh water	Daphnia - Daphnia magna	Static
	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute NOEC >1000 mg/l Fresh water	Daphnia - Daphnia magna	Static
	Chronic LC50 0,019 mg/l Al ³⁺ Fresh water	Daphnia - Daphnia magna	48 hours
	Chronic NOEC 3,8 mg/l Fresh water	Fish - Danio rerio	Semi-static
	Chronic NOEC 0,013 mg/l Al ³⁺ Fresh water	Fish - Danio rerio	96 hours
		Fish - Salmo trutta	Static
methanol	EC50 22000 mg/l Fresh water	Fish - Danio rerio	96 hours
	IC50 8800 mg/l Fresh water	Fish - Danio rerio	Static
	Acute EC50 >10000 mg/l Fresh water	Fish - Danio rerio	24 hours
	Acute LC50 15400 mg/l Fresh water	Micro-organism - Nitrosomonas sp.	Static
		Daphnia - Daphnia magna	48 hours
		Fish - Lepomis macrochirus	Static
			96 hours
			Flow

SECTION 12: Ecological information

through

Conclusion/Summary : **methanol**: No known significant effects or critical hazards.**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
methanol	-	83 to 91 % - Readily - 3 days	-	Fresh water
	-	71 to 83 % - Readily - 5 days	BOD/ThOD	Sediment
	-	69 to 97 % - 5 days	O ₂ Consumption	Sewage
	-	53,4 % - 5 days	-	Marine water
	-	46,3 % - 5 days	-	-

Conclusion/Summary : **methanol**: Readily biodegradable

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
methanol	-	50%; 17.2 day(s)	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
aluminium sulphate	-	362	low
methanol	-0,77	<10	low

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment****PBT** : Not applicable.**vPvB** : Not applicable.**12.6 Other adverse effects** : No known significant effects or critical hazards.**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air

Not listed

Industrial emissions (integrated pollution prevention and control) - Water

SECTION 15: Regulatory information

Not listed

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: Not determined.

15.2 Chemical Safety Assessment

: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

- : ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H370	Causes damage to organs.

Full text of classifications [CLP/GHS]

Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 3
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

Date of issue/ Date of revision : 23.04.2018

Date of previous issue : 26.11.2015

Previous product name : Not available.

Version : 5