MED-4159

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Revision date: 26/11/2018 Date of issue: 06/02/2015 Version: 4.0

SECTION 1: Identification of the Substance/mixture and of the Company/Undertaking

1.1. Product Identifier

Product form	Mixture
Product Name	MED-4159
Synonyms	Silicone Dispersion

1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

1.2.1. Relevant Identified Uses

Use of the Substance/Mixture For professional use only.

1.2.2. Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology LLC
1050 Cindy Lane
Carpinteria, California 93013
USA
(805) 684-8780
ehs@nusil.com
www.nusil.com

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International and Maritime)

SECTION 2: Hazards Identification

2.1. Classification of the Substance or Mixture

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

Flam. Liq. 3 H226
Eye Irrit. 2 H319
Skin Sens. 1 H317
STOT SE 3 H336
Asp. Tox. 1 H304

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP]

Hazard Pictograms (CLP)

GHS02 GHS07 GHS08

Signal Word (CLP)	Danger
Hazardous Ingredients	N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine; Naphtha, petroleum, hydrotreated heavy
Hazard Statements (CLP)	H226 - Flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H317 - May cause an allergic skin reaction.

	H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.
Precautionary Statements (CLP)	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof electrical, ventilating, and lighting equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P261 - Avoid breathing vapors, mist, or spray P264 - Wash hands, forearms, and other exposed areas thoroughly after handling P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves, protective clothing, and eye protection P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor P302+P352 - IF ON SKIN: Wash with plenty of water P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 - Call a POISON CENTRE or doctor if you feel unwell. P321 - Specific treatment (see section 4 on this SDS) P331 - Do NOT induce vomiting. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other Hazards

Other Hazards Not Contributing to the Classification	Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Naphtha, petroleum, hydrotreated heavy	(CAS-No.) 64742-48-9 (EC-No.) 265-150-3 (EC Index-No.) 649-327-00-6	15 - 40	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304
Isopropyl alcohol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0	5 - 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Benzene, 1,2,4-trimethyl-	(CAS-No.) 95-63-6 (EC-No.) 202-436-9 (EC Index-No.) 601-043-00-3	<3	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine	(CAS-No.) 1760-24-3 (EC-No.) 217-164-6	<2	Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Skin Sens. 1, H317

Full text of H-statements: see section 16

SECTION 4: First Aid Measures

4.1. Description of First-aid Measures

First-Aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-Aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-Aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-Aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

First-Aid Measures After Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Effects: Causes serious eye irritation. May cause drowsiness and dizziness. Skin sensitisation. May be fatal if swallowed and enters airways.

Symptoms/Effects After Inhalation: High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Effects After Skin Contact: May cause an allergic skin reaction. Causes mild skin irritation.

Symptoms/Effects After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Effects After Ingestion	Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.
Chronic Symptoms	Repeated exposure may cause skin dryness or cracking.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting Measures

5.1. Extinguishing Media

Suitable Extinguishing Media	Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO_2). Water may be ineffective but water should be used to keep fire-exposed container cool.
Unsuitable Extinguishing Media	Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard	Flammable liquid and vapour.
Explosion Hazard	May form flammable or explosive vapour-air mixture.
Reactivity	Reacts violently with strong oxidisers. Increased risk of fire or explosion.
Hazardous Decomposition Products in Case of Fire	Carbon oxides (CO, CO_2). Silicon oxides. Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

5.3. Advice for Firefighters

Precautionary Measures Fire	Exercise caution when fighting any chemical fire.
Firefighting Instructions	Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.
Other Information	Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures	Avoid breathing (vapor, mist, spray). Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

6.1.1. For Non-Emergency Personnel

Protective Equipment	Use appropriate personal protective equipment (PPE).
Emergency Procedures	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Responders

Protective Equipment	Equip cleanup crew with proper protection.

Emergency Procedures	Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area. Eliminate ignition sources.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.
Methods For Cleaning Up	Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling And Storage

7.1. Precautions for Safe Handling

Additional Hazards When Processed	Handle empty containers with care because residual vapours are flammable.
Precautions for Safe Handling	Avoid contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures	Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.
Storage Conditions	Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.
Incompatible Materials	Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(S)

For professional use only.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control Parameters

Isopropyl alcohol (67-63-0)		
Austria	MAK (mg/m³)	500 mg/m³ (short time value for large

		casting, valid till 12/31/2013)
Austria	MAK (ppm)	200 ppm (short time value for large casting, valid till 12/31/2013)
Austria	MAK Short time value (mg/m³)	2000 mg/m³ (STEL for large casting valid till 12/31/2013)
Austria	MAK Short time value (ppm)	800 ppm (STEL for large casting valid till 12/31/2013)
Belgium	Limit value (mg/m³)	500 mg/m³
Belgium	Limit value (ppm)	200 ppm
Belgium	Short time value (mg/m³)	1000 mg/m³
Belgium	Short time value (ppm)	400 ppm
Bulgaria	OEL TWA (mg/m³)	980 mg/m³
Bulgaria	OEL STEL (mg/m³)	1225 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	999 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	400 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	1250 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	500 ppm
Croatia	Croatia - BLV	50 mg/l Parameter: Acetone - Medium: blood - Sampling time: at the end of the shift 50 mg/l Parameter: Acetone - Medium: urine - Sampling time: at the end of the shift
Czech Republic	Expoziční limity (PEL) (mg/m³)	500 mg/m³
Czech Republic	OEL chemical category (CZ)	Potential for cutaneous absorption
Denmark	Grænseværdie (langvarig) (mg/m³)	490 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm
Estonia	OEL TWA (mg/m³)	350 mg/m³
Estonia	OEL TWA (ppm)	150 ppm
Estonia	OEL STEL (mg/m³)	600 mg/m³
Estonia	OEL STEL (ppm)	250 ppm
Finland	HTP-arvo (8h) (mg/m³)	500 mg/m³
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	620 mg/m³
Finland	HTP-arvo (15 min) (ppm)	250 ppm
France	VLE (mg/m³)	980 mg/m³
France	VLE (ppm)	400 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	500 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)

Germany	TRGS 900 Occupational exposure limit value (ppm)	200 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 (BGW)	25 mg/l Parameter: Acetone - Medium: whole blood - Sampling time: end of shift 25 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift
Greece	OEL TWA (mg/m³)	980 mg/m³
Greece	OEL TWA (ppm)	400 ppm
Greece	OEL STEL (mg/m³)	1225 mg/m³
Greece	OEL STEL (ppm)	500 ppm
Hungary	AK-érték	500 mg/m³
Hungary	CK-érték	2000 mg/m³
Hungary	OEL chemical category (HU)	Potential for cutaneous absorption
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Ireland	OEL chemical category (IE)	Potential for cutaneous absorption
Latvia	OEL TWA (mg/m³)	350 mg/m³
Lithuania	IPRV (mg/m³)	350 mg/m³
Lithuania	IPRV (ppm)	150 ppm
Lithuania	TPRV (mg/m³)	600 mg/m³
Lithuania	TPRV (ppm)	250 ppm
Norway	Grenseverdier (AN) (mg/m³)	245 mg/m³
Norway	Grenseverdier (AN) (ppm)	100 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	306,25 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	125 ppm (value calculated)
Poland	NDS (mg/m³)	900 mg/m³
Poland	NDSCh (mg/m³)	1200 mg/m³
Portugal	OEL TWA (ppm)	200 ppm
Portugal	OEL STEL (ppm)	400 ppm
Portugal	OEL chemical category (PT)	A4 - Not Classifiable as a Human Carcinogen
Romania	OEL TWA (mg/m³)	200 mg/m³
Romania	OEL TWA (ppm)	81 ppm
Romania	OEL STEL (mg/m³)	500 mg/m³
Romania	OEL STEL (ppm)	203 ppm
Romania	Romania - BLV	50 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift
Slovakia	NPHV (priemerná) (mg/m³)	500 mg/m³
Slovakia	NPHV (priemerná) (ppm)	200 ppm

Slovakia	NPHV (Hraničná) (mg/m³)	1000 mg/m³
Slovenia	OEL TWA (mg/m³)	500 mg/m³
Slovenia	OEL TWA (ppm)	200 ppm
Slovenia	OEL STEL (mg/m³)	2000 mg/m³
Slovenia	OEL STEL (ppm)	800 ppm
Spain	VLA-ED (mg/m³)	500 mg/m³ (the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound is prohibited)
Spain	VLA-ED (ppm)	200 ppm (the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound is prohibited)
Spain	VLA-EC (mg/m³)	1000 mg/m³
Spain	VLA-EC (ppm)	400 ppm
Spain	Spain - BLV	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of workweek
Sweden	nivågränsvärde (NVG) (mg/m³)	350 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	150 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	600 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	250 ppm
Switzerland	KZGW (mg/m³)	1000 mg/m³
Switzerland	KZGW (ppm)	400 ppm
Switzerland	MAK (mg/m³)	500 mg/m³
Switzerland	MAK (ppm)	200 ppm
Switzerland	Switzerland - BLV	25 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift 25 mg/l Parameter: Acetone - Medium: whole blood - Sampling time: end of shift
United Kingdom	WEL TWA (mg/m³)	999 mg/m³
United Kingdom	WEL TWA (ppm)	400 ppm
United Kingdom	WEL STEL (mg/m³)	1250 mg/m³
United Kingdom	WEL STEL (ppm)	500 ppm

Benzene, 1,2,4-trimethyl- (95-63-6)		
EU	IOELV TWA (mg/m³)	100 mg/m³
EU	IOELV TWA (ppm)	20 ppm
Austria	MAK (mg/m³)	100 mg/m³
Austria	MAK (ppm)	20 ppm
Austria	MAK Short time value (mg/m³)	150 mg/m³
Austria	MAK Short time value (ppm)	30 ppm
Bulgaria	OEL TWA (mg/m³)	100 mg/m³

Bulgaria	OEL TWA (ppm)	20 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	100 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Cyprus	OEL TWA (mg/m³)	100 mg/m³
Cyprus	OEL TWA (ppm)	20 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	100 mg/m³
Czech Republic	OEL chemical category (CZ)	Potential for cutaneous absorption
Denmark	Grænseværdie (langvarig) (mg/m³)	100 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	20 ppm
Estonia	OEL TWA (mg/m³)	100 mg/m³
Estonia	OEL TWA (ppm)	20 ppm
Finland	HTP-arvo (8h) (mg/m³)	100 mg/m³
Finland	HTP-arvo (8h) (ppm)	20 ppm
France	VLE (mg/m³)	250 mg/m³ (restrictive limit)
France	VLE (ppm)	50 ppm (restrictive limit)
France	VME (mg/m³)	100 mg/m³ (restrictive limit)
France	VME (ppm)	20 ppm (restrictive limit)
France	France - BLV	600 mg/g creatinine Parameter: Total Dimethylbenzoic acids (after hydrolysis) in urine - Medium: urine - Sampling time: end of shift after several shits
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	100 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 (BGW)	400 mg/g Parameter: Dimethylbenzoic acid - Medium: urine - Sampling time: end of shift (sum of all isomers after hydrolysis) 400 mg/g Parameter: Dimethylbenzoic acid - Medium: urine - Sampling time: end of several shifts (sum of all isomers after hydrolysis)
Gibraltar	Eight hours mg/m3	100 mg/m³
Gibraltar	Eight hours ppm	20 ppm
Greece	OEL TWA (mg/m³)	125 mg/m³
Greece	OEL TWA (ppm)	25 ppm

Hungary	AK-érték	100 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	100 mg/m³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	OEL (15 min ref) (mg/m3)	300 mg/m³ (calculated)
Ireland	OEL (15 min ref) (ppm)	60 ppm (calculated)
Italy	OEL TWA (mg/m³)	100 mg/m³
Italy	OEL TWA (ppm)	20 ppm
Latvia	OEL TWA (mg/m³)	100 mg/m³
Latvia	OEL TWA (ppm)	20 ppm
Luxembourg	OEL TWA (mg/m³)	100 mg/m³
Luxembourg	OEL TWA (ppm)	20 ppm
Malta	OEL TWA (mg/m³)	100 mg/m³
Malta	OEL TWA (ppm)	20 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	100 mg/m³
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	200 mg/m³
Norway	Grenseverdier (AN) (mg/m³)	100 mg/m³
Norway	Grenseverdier (AN) (ppm)	20 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	125 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	30 ppm (value calculated)
Poland	NDS (mg/m³)	100 mg/m³
Poland	NDSCh (mg/m³)	170 mg/m³
Portugal	OEL TWA (mg/m³)	100 mg/m³ (indicative limit value)
Portugal	OEL TWA (ppm)	20 ppm (indicative limit value)
Romania	OEL TWA (mg/m³)	100 mg/m³
Romania	OEL TWA (ppm)	20 ppm
Slovakia	NPHV (priemerná) (mg/m³)	100 mg/m³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	200 mg/m³
Slovenia	OEL TWA (mg/m³)	100 mg/m³
Slovenia	OEL TWA (ppm)	20 ppm
Spain	VLA-ED (mg/m³)	100 mg/m³ (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Sweden	nivågränsvärde (NVG) (mg/m³)	120 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	25 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	170 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	35 ppm

Naphtha, petroleum, hydrotreated heavy (64742-48-9)		
Poland	NDS (mg/m³)	300 mg/m³ (varnish)
Poland	NDSCh (mg/m³)	900 mg/m³ (varnish)
Switzerland	KZGW (mg/m³)	600 mg/m³

Switzerland	KZGW (ppm)	100 ppm
Switzerland	MAK (mg/m³)	300 mg/m³
Switzerland	MAK (ppm)	50 ppm

8.2. Exposure Controls

Appropriate Engineering Controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.
Personal Protective Equipment	Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing	Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.
Hand Protection	Wear protective gloves.
Eye Protection	Chemical safety goggles.
Skin and Body Protection	Wear suitable protective clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other Information	When using, do not eat, drink or smoke.

SECTION 9: Physical and Chemical Hazards

9.1. Information on Basic Physical and Chemical Properties

Physical State	Liquid
Colour	Colourless
Odour	Solvent
Odour Threshold	No data available
pH	No data available
Evaporation Rate	No data available
Melting Point	No data available
Freezing Point	No data available
Boiling Point	150 - 205 °C (302 - 401 °F)
Flash Point	40 °C (104 °F)
Auto-Ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (Solid, Gas)	Not applicable
Vapour Pressure	No data available
Relative Vapour Density At 20 °C	No data available
Relative Density	No data available
Solubility	No data available
Partition Coefficient n-Octanol/Water	No data available
Viscosity, Kinematic	No data available
Viscosity, Dynamic	No data available

Explosive Properties	No data available
Oxidising Properties	No data available
Explosive Limits	No data available

9.2. Other Information

No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

Reacts violently with strong oxidisers. Increased risk of fire or explosion.

10.2. Chemical Stability

Flammable liquid and vapour. May form flammable or explosive vapour-air mixture.

10.3. Possibility Of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions To Avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

None expected under normal conditions of use.

SECTION 11: Toxicological Information

11.1. Information On Toxicological Effects

Acute Toxicity Not classified

Isopropyl alcohol (67-63-0)	
LD50 Oral	4384 mg/kg
LD50 Dermal Rabbit	12956 mg/kg (16.4 mL/kg bw)
LC50 Inhalation Rat	72600 mg/m³ (Exposure time: 4 h)

Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 Oral Rat	6000 mg/kg
LD50 Oral	5000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat	18 g/m³ (Exposure time: 4 h)
LC50 Inhalation Rat	10,8 mg/l/4h

N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (1760-24-3)	
LD50 Oral Rat	2295 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 1,49 mg/l/4h

Naphtha, petroleum, hydrotreated heavy (64742-48-9)	
LD50 Oral Rat	> 6000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat	> 8500 mg/m³ (Exposure time: 4 h)

Skin Corrosion/Irritation	Not classified
Eye Damage/Irritation	Causes serious eye irritation.
Respiratory or Skin Sensitization	May cause an allergic skin reaction.

Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity (Single Exposure)	May cause drowsiness or dizziness.
Specific Target Organ Toxicity (Repeated Exposure)	Not classified
Aspiration Hazard	May be fatal if swallowed and enters airways.

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - General: Harmful to aquatic life.

Isopropyl alcohol (67-63-0)	
LC50 Fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)
LC50 Fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Other Aquatic Organisms 2	1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

Benzene, 1,2,4-trimethyl- (95-63-6)	
LC50 Fish 1	7,19 (7,19 - 8,28) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6,14 mg/l (Exposure time: 48 h - Species: Daphnia magna)

N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (1760-24-3)	
LC50 Fish 1	597 mg/l (Species: Danio rerio)
EC50 Daphnia 1	81 mg/l
ErC50 (Algae)	8,8 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)
NOEC Chronic Fish	344 mg/l
NOEC Chronic Crustacea	35 mg/l
NOEC Chronic Algae	3,1 mg/l (Pseudokirchnerella subcapitata Exposure time: 96h)

Naphtha, petroleum, hydrotreated heavy (64742-48-9)	
LC50 Fish 1	2200 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

12.2. Persistence and Degradability

MED-4159	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

MED-4159	
Bioaccumulative potential	Not established.

Isopropyl alcohol (67-63-0)	
Log Pow	0,05 (at 25 °C)

Benzene, 1,2,4-trimethyl- (95-63-6)	
Log Pow	3,63

12.4. Mobility in Soil
No additional information available

12.5. Results of PBT and vPvB assessment
No additional information available

12.6. Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods
Product/Packaging Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.
Additional Information: Handle empty containers with care because residual vapours are flammable.
Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN Number				
1993	1993	1993	1993	1993
14.2. UN Proper Shipping Name				
FLAMMABLE LIQUID, N.O.S. (CONTAINS: Isopropyl alcohol; Naphtha, petroleum, hydrotreated heavy)	FLAMMABLE LIQUID, N.O.S. (CONTAINS: Isopropyl alcohol; Naphtha, petroleum, hydrotreated heavy)	FLAMMABLE LIQUID, N.O.S. (CONTAINS: Isopropyl alcohol; Naphtha, petroleum, hydrotreated heavy)	FLAMMABLE LIQUID, N.O.S. (CONTAINS: Isopropyl alcohol; Naphtha, petroleum, hydrotreated heavy)	FLAMMABLE LIQUID, N.O.S. (CONTAINS: Isopropyl alcohol; Naphtha, petroleum, hydrotreated heavy)
14.3. Transport Hazard Class(Es)				
3	3	3	3	3
				
14.4. Packing Group				
III	III	III	III	III
14.5. Environmental Hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

14.6. Special Precautions For User
No additional information available

14.7. Transport in Bulk According to Annex II of MARPOL and The IBC Code

Not applicable

SECTION 15: Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

15.1.1. EU-Regulations

Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

Isopropyl alcohol (67-63-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Benzene, 1,2,4-trimethyl- (95-63-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
N-[3-(Trimethoxysilyl)propyl]-1,2-ethanediamine (1760-24-3)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Naphtha, petroleum, hydrotreated heavy (64742-48-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.2. National Regulations

No additional information available

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: Other Information

Indication of Changes No additional information available

Date of Preparation or Latest Revision	26/11/2018
Data Sources	Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.
Other Information	According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full Text of H- and EUH-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists
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
ATE - Acute Toxicity Estimate
BCF - Bioconcentration Factor
BEI - Biological Exposure Indices (BEI)
BOD – Biochemical Oxygen Demand
CAS No. - Chemical Abstracts Service Number
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008
COD – Chemical Oxygen Demand
EC – European Community
EC50 - Median Effective Concentration
EEC – European Economic Community
EINECS – European Inventory of Existing Commercial Chemical Substances
EmS-No. (Fire) - IMDG Emergency Schedule Fire
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage
EU – European Union
ErC50 - EC50 in Terms of Reduction Growth Rate
GHS – Globally Harmonized System of Classification and Labeling of Chemicals
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC Code - International Bulk Chemical Code
IMDG - International Maritime Dangerous Goods
IPRV - Ilgalaikio Poveikio Ribinis Dydis
IOELV – Indicative Occupational Exposure Limit Value
LC50 - Median Lethal Concentration
LD50 - Median Lethal Dose
LOAEL - Lowest Observed Adverse Effect Level
LOEC - Lowest-Observed-Effect Concentration
Log Koc - Soil Organic Carbon-water Partitioning Coefficient
Log Kow - Octanol/water Partition Coefficient
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration
MARPOL - International Convention for the Prevention of Pollution
NDS - Najwyzsze Dopuszczalne Stezenie
NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe
NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NRD - Nevirsytinas Ribinis Dydis
NTP – National Toxicology Program
OEL - Occupational Exposure Limits
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
pH – Potential Hydrogen
REACH – 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
STEL - Short Term Exposure Limit
TA-Luft - Technische Anleitung zur Reinhaltung der Luft
TEL TRK – Technical Guidance Concentrations
ThOD – Theoretical Oxygen Demand
TLM - Median Tolerance Limit
TLV - Threshold Limit Value
TPRD - Trumpalaikio Poveikio Ribinis Dydis
TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern
TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
VOC – Volatile Organic Compounds
VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
VLA-ED - Valor Límite Ambiental Exposición Diaria
VLE – Valeur Limite D'exposition
VME – Valeur Limite De Moyenne Exposition
vPvB - Very Persistent and Very Bioaccumulative
WEL – Workplace Exposure Limit
WGK - Wassergefährdungsklasse

Nusil EU GHS SDS

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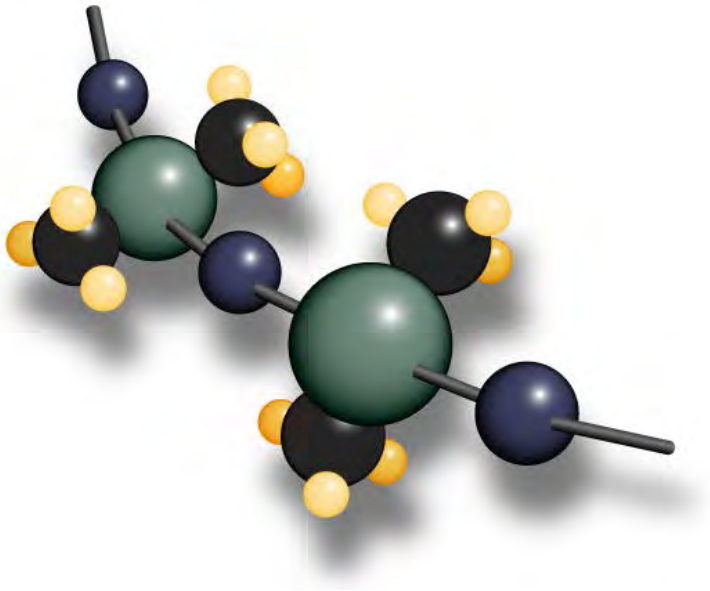

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