# FS-3511 Part A

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Revision Date: 23/10/2024 Date of Issue: 13/12/2013 Version: 4.0

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

### 1.1. Product Identifier

| | |
|---|---|
| Product Form | Mixture |
| Product Name | FS-3511 Part A |
| Synonyms | Fluorosilicone Elastomer |

### 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

| | |
|---|---|
| Uses Advised Against | No aditional informtion available. |

### 1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology Europe
1198 Avenue Maurice Donat
Le Natura Bt. 2
06250 Mougins
France
+33 4 92 96 93 31
productstewardship@avantorsciencesgcc.com
www.nusil.com

### 1.4. Emergency Telephone Number

| | |
|---|---|
| Emergency Number | +1 703-527-3887 CHEMTREC (International and Maritime)<br>800-424-9300 CHEMTREC (in US)<br>+(44)-870-8200418<br>+(353)-19014670 |

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**Classification According to Regulation (EC) No. 1272/2008**

Not classified.

### 2.2. Label Elements

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

| | |
|---|---|
| EUH-statements | EUH210 - Safety data sheet available on request. |

### 2.3. Other Hazards

| | |
|---|---|
| Other Hazards Not Contributing to the Classification | No additional information available |

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII

The substance/mixture does not contain substance(s) equal to or greater than 0,1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product Identifier | % | Classification According to Regulation (EC) No. 1272/2008 |
|---|---|---|---|
| Silica gel, fluorinated substance with national workplace exposure limit(s) | (CAS-No.) 72319-09-6<br>(EC-No.) 276-584-8 | 20 - 40 | Not classified. |

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 5 minutes. Obtain medical attention if irritation develops or persists. |
| First-Aid Measures After Eye Contact | Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists. |
| First-Aid Measures After Ingestion | Rinse mouth. Do NOT induce vomiting. Obtain medical attention. |

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

| | |
|---|---|
| Symptoms/Effects | Not expected to present a significant hazard under anticipated conditions of normal use. |
| Symptoms/Effects After Inhalation | Prolonged exposure may cause irritation. |
| Symptoms/Effects After Skin Contact | Prolonged exposure may cause skin irritation. |
| Symptoms/Effects After Eye Contact | May cause slight irritation to eyes. |
| Symptoms/Effects After Ingestion | Ingestion may cause adverse effects. |
| Chronic Symptoms | None expected under normal conditions of use. |

### 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 | Water spray, fog, carbon dioxide ($CO_2$), alcohol-resistant foam, or dry chemical. |
| Unsuitable Extinguishing Media | Do not use a heavy water stream. Use of heavy stream of water may spread fire. |

### 5.2. Special Hazards Arising From the Substance or Mixture

| | |
|---|---|
| Fire Hazard | Not considered flammable but may burn at high temperatures. |
| Explosion Hazard | Product is not explosive. |
| Reactivity | Hazardous reactions will not occur under normal conditions. |
| Hazardous Combustion Products | Carbon oxides (CO, $CO_2$). Formaldehyde. Halogenated compounds. Silicon oxides. |

### 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. |
| Protection During Firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

| | |
|---|---|
| General Measures | Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour, mist, spray). |

#### 6.1.1. For Non-Emergency Personnel

| | |
|---|---|
| Protective Equipment | Use appropriate personal protective equipment (PPE). |
| Emergency Procedures | Evacuate unnecessary personnel. |

#### 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 recognise 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. |

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 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. |
| Methods for Cleaning Up | Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. 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 | Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapours. |
| Precautions for Safe Handling | Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapours, mist, spray. |
| 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. |
| Storage Conditions | Store in accordance with applicable national storage class systems. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. |
| Incompatible Materials | Strong acids, strong bases, strong oxidisers. |

### 7.3. Specific End Use(s)

For professional use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

| Silica gel, fluorinated (72319-09-6) | | |
|---|---|---|
| Austria | OEL TWA (Legal Basis:BGBl. II Nr. 254/2018) | 4 mg/m³ (also Silica manufactured through wet process-inhalable fraction) |
| Czech Republic | OEL TWA (Legal Basis:Reg. 41/2020) | 0.1 mg/m³ (respirable fraction)<br>4 mg/m³ |
| Estonia | OEL TWA (Legal Basis:Regulation No. 105) | 2 mg/m³ (amorphous-respirable dust) |
| Finland | OEL TWA (Legal Basis:HTP-ARVOT 2020) | 5 mg/m³ (Silicon dioxide, amorphous) |
| Germany | OEL TWA (Legal Basis:TRGS 900) | 4 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction) |
| Ireland | OEL TWA (Legal Basis:2020 COP) | 6 mg/m³ (total inhalable dust)<br>2.4 mg/m³ (respirable dust) |
| Ireland | OEL STEL (Legal Basis:2020 COP) | 18 mg/m³ (calculated-respirable dust)<br>7.2 mg/m³ (calculated-respirable dust) |
| Latvia | OEL TWA (Legal Basis:Reg. No. 325) | 1 mg/m³ |
| Norway | OEL TWA (Legal Basis:FOR-2020-04-06-695) | 1.5 mg/m³ (respirable dust) |
| Norway | OEL STEL (Legal Basis:FOR-2020-04-06-695) | 3 mg/m³ (value calculated-respirable dust) |
| Slovenia | OEL TWA (Legal Basis:No. 79/19) | 4 mg/m³ (inhalable fraction, gel) |
| Switzerland | OEL TWA (Legal Basis:OLVSNAIF) | 4 mg/m³ (including Silica, amorphous-inhalable dust) |

### 8.2. Exposure Controls

| | |
|---|---|
| Appropriate Engineering Controls | Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. |
| Personal Protective Equipment | Gloves. Protective clothing. Protective goggles. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment. |

| | |
|---|---|
| Materials for Protective Clothing | Chemically resistant materials and fabrics. |
| 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 PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

| | |
|---|---|
| Physical State | Liquid |
| Colour, Appearance | Colourless |
| Odour | Odourless |
| 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 | No data available |
| Flash Point | > 135 °C (275 °F) |
| Auto-Ignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability | Not applicable |
| Vapour Pressure | No data available |
| Relative Vapour Density At 20 °C | No data available |
| Relative Density | > 1 |
| Solubility | No data available |
| Partition Coefficient n-Octanol/Water | No data available |
| Viscosity | No data available |
| Explosive Properties | No data available |
| Oxidising Properties | No data available |
| Explosive Limits | No data available |
| Particle Aspect Ratio | Not applicable |
| Particle Aggregation State | Not applicable |
| Particle Agglomeration State | Not applicable |
| Particle Specific Surface Area | Not applicable |
| Particle Dustiness | Not applicable |

### 9.2. Other Information

| | |
|---|---|
| VOC content | < 1 % |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerisation will not occur.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidisers.

### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, $CO_2$). Halogenated compounds. Silicon oxides. Will decompose above 150 °C (>300 °F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitiser. Formaldehyde can also cause respiratory and eye irritation.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Hazard Classes As Defined In Regulation (EC) No 1272/2008

| | |
|---|---|
| Likely Routes of Exposure | Dermal; Eye contact; Ingestion |
| Acute Toxicity (Oral) | Not classified. (Based on available data, the classification criteria are not met) |
| Acute Toxicity (Dermal) | Not classified. (Based on available data, the classification criteria are not met) |
| Acute Toxicity (Inhalation) | Not classified. (Based on available data, the classification criteria are not met) |
| Skin Corrosion/Irritation | Not classified. (Based on available data, the classification criteria are not met) |
| Eye Damage/Irritation | Not classified. (Based on available data, the classification criteria are not met) |
| Respiratory or Skin Sensitisation | Not classified. (Based on available data, the classification criteria are not met) |
| Germ Cell Mutagenicity | Not classified. (Based on available data, the classification criteria are not met) |
| Carcinogenicity | Not classified. (Based on available data, the classification criteria are not met) |
| Reproductive Toxicity | Not classified. (Based on available data, the classification criteria are not met) |
| Specific Target Organ Toxicity (Single Exposure) | Not classified. (Based on available data, the classification criteria are not met) |
| Specific Target Organ Toxicity (Repeated Exposure) | Not classified. (Based on available data, the classification criteria are not met) |
| Aspiration Hazard | Not classified. (Based on available data, the classification criteria are not met) |
| Symptoms/Injuries After Inhalation | Prolonged exposure may cause irritation. |
| Symptoms/Injuries After Skin Contact | Prolonged exposure may cause skin irritation. |
| Symptoms/Injuries After Eye Contact | May cause slight irritation to eyes. |
| Symptoms/Injuries After Ingestion | Ingestion may cause adverse effects. |
| Chronic Symptoms | None expected under normal conditions of use. |

### 11.2. Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

| | |
|---|---|
| Hazardous To The Aquatic Environment, Short–Term (Acute) | Not classified. (Based on available data, the classification criteria are not met) |
| Hazardous To The Aquatic Environment, Long–Term (Chronic) | Not classified. (Based on available data, the classification criteria are not met) |

### 12.2. Persistence and Degradability

| FS-3511 Part A | |
|---|---|
| Persistence and Degradability | Not established. |

### 12.3. Bioaccumulative Potential

| FS-3511 Part A | |
|---|---|
| Bioaccumulative Potential | Not established. |

### 12.4. Mobility in Soil

No additional information available

### 12.5. Results of PBT and vPvB Assessment

Does not contain any PBT/vPvB substances >= 0,1% assessed in accordance with REACH Annex XIII

### 12.6. Endocrine Disrupting Properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

### 12.7. 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. |
| Ecology - Waste Materials | Avoid release to the environment. |

## 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

### 14.1. UN Number or ID Number

Not regulated for transport

### 14.2. UN Proper Shipping Name

Not regulated for transport

### 14.3. Transport Hazard Class(es)

Not regulated for transport

### 14.4. Packing Group

Not regulated for transport

### 14.5. Environmental Hazards

Not regulated for transport

### 14.6. Special Precautions For User
No additional information available

### 14.7. Maritime Transport in Bulk According to IMO instruments
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**

**15.1.1.1. REACH Annex XVII Information**
Contains no REACH substances with Annex XVII restrictions

**15.1.1.2. REACH Candidate List Information**
Contains no substance(s) listed on the REACH Candidate List

**15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information**
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

**15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information**
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

**15.1.1.5. REACH Annex XIV Information**
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

**15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information**
No additional information available

**15.1.1.7. EC Inventory Information**
No additional information available

**15.1.1.8. Other Information**
No additional information available

**15.1.2. National Regulations**
No additional information available

**15.1.3. International Inventory Lists**
No additional information available

### 15.2. Chemical Safety Assessment
No chemical safety assessment has been carried out

## SECTION 16: OTHER INFORMATION

| | |
|---|---|
| Date of Preparation or Latest Revision | 23/10/2024 |
| 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) 2020/878 |

## Indication of Changes

| Section | Change | Date Changed | Version |
|---|---|---|---|
| 1 | Language modified | 23/10/2024 | 4.0 |
| 2 | Language modified | 23/10/2024 | 4.0 |
| 3 | Data modified; Language modified | 23/10/2024 | 4.0 |
| 4 | Language modified | 23/10/2024 | 4.0 |
| 5 | Language modified | 23/10/2024 | 4.0 |
| 6 | Language modified | 23/10/2024 | 4.0 |
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| 8 | Data modified; Language modified | 23/10/2024 | 4.0 |
| 9 | Data modified | 23/10/2024 | 4.0 |
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| 12 | Language modified | 23/10/2024 | 4.0 |
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| 14 | Language modified | 23/10/2024 | 4.0 |
| 15 | Language modified | 23/10/2024 | 4.0 |
| 16 | Language modified | 23/10/2024 | 4.0 |

## 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
STOT - Specific Target Organ Toxicity
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

## Limit Value Legal Basis*

*Includes the below and any related regulations/provisions, and subsequent amendements

**EU - 2019/1831 EU in accor. with 98/24/EC** - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative

**Gibraltar - LN. 2018/131** - Factories (Control of Chemical Agents at Work) Regulations 2003 LN. 2003/035, amended by LN. 2008/035,

occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.
**EU - 2019/1243/EU, and 98/24/EC)** - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.
**Austria - BGBl. II Nr. 254/2018** - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBL. II) No 119/2004) & BGBl. II No. 242/2006, BGBl. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.
**Austria - BLV BGBl. II Nr. 254/2018** - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018
**Belgium - Royal Decree 21/01/2020** - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)
**Bulgaria - Reg. No. 13/10** -
Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex № 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020
**Croatia - OG No. 91/2018** - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018
**Cyprus - KDP 16/2019** - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.
**Czech Republic - Reg. 41/2020** - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended
**Czech Republic - Decree No. 107/2013** - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents
**Denmark - BEK No. 698 of 28/05/2020** - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020
**Estonia - Regulation No. 105** - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.
**Finland - HTP-ARVOT 2020** - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of LN. 2008/050, LN. 2012/021, LN. 2015/143, LN. 2018/181.
**Greece - PWHSE** - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.
**Hungary - Decree 05/2020** - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents
**Ireland - 2020 COP** - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1
**Italy - Decree 81** - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020
**Italy - IMDFN1** - Ministerial Decree of August 20, 1999 Final Note (1)
**Latvia - Reg. No. 325** - Cabinet of Ministers Regulation No. 325 - Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and No. 11.
**Lithuania - HN 23:2011** - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272.
**Luxembourg - A-N 684** - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018
**Malta - MOSHAA Ch. 424** - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57.
**Netherlands- OWCRLV** - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.
**Norway - FOR-2020-04-060695** - Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, FOR-2011-12-06-1358, Updated by: FOR-2020-04-06-695, FOR-2020-03-23-402, FOR-2018-12-20-2186, FOR-2018-08-21-1255, FOR-2017-12-20-2353.
**Poland - Dz. U. 2020 Nr. 61** - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.
**Portugal - Portuguese Norm NP 1796:2014** - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.
**Romania - Gov. Dec. No 1.218** - Governmental Decision No. 1.218 from 06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.
**Slovakia - Gov. Decree 33/2018** - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents
**Slovenia - No. 79/19** - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III - Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001 . Annex I - List of Binding

Social Affairs and Health 2020:24 Annexes1, 2 and 3.
**France - INRS ED 984** - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119, and Decree 2019-1487.
**France - Decree 2009-1570** - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.
**Germany - TRGS 900** - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020
**Germany - TRGS 903** - Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, latest amendment March, 2020
Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19
**Spain - AFS 2018:1** - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019
**Sweden - AFS 2018:1** - Statute Book of the Swedish Work Environment Authority, AFS 2018:1
The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values
**Switzerland - OLVSNAIF** - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of MAK Values.

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NuSil EU GHS SDS (2020/878)

# FS-3511 Part B

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Revision Date: 23/10/2024 Date of Issue: 13/12/2013 Version: 4.0

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

### 1.1. Product Identifier

| | |
|---|---|
| Product Form | Mixture |
| Product Name | FS-3511 Part B |
| Synonyms | Fluorosilicone Elastomer |

### 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

Uses Advised Against No aditional informtion available.

### 1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology Europe
1198 Avenue Maurice Donat
Le Natura Bt. 2
06250 Mougins
France
+33 4 92 96 93 31
productstewardship@avantorsciencesgcc.com
www.nusil.com

### 1.4. Emergency Telephone Number

Emergency Number +1 703-527-3887 CHEMTREC (International and Maritime)
800-424-9300 CHEMTREC (in US)
+(44)-870-8200418
+(353)-19014670

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

**Classification According to Regulation (EC) No. 1272/2008**

Not classified.

### 2.2. Label Elements

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

EUH-statements EUH210 - Safety data sheet available on request.

### 2.3. Other Hazards

Other Hazards Not Contributing to the Classification No additional information available

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII

The substance/mixture does not contain substance(s) equal to or greater than 0,1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1. Substances

Not applicable

## 3.2. Mixtures

| Name | Product Identifier | % | Classification According to Regulation (EC) No. 1272/2008 |
|---|---|---|---|
| Silica gel, fluorinated substance with national workplace exposure limit(s) | (CAS-No.) 72319-09-6<br>(EC-No.) 276-584-8 | 20 - 40 | Not classified. |
| 3-Butyn-2-ol, 2-methyl- | (CAS-No.) 115-19-5<br>(EC-No.) 204-070-5 | < 1 | Flam. Liq. 2, H225<br>Acute Tox. 4 (Oral), H302<br>Eye Dam. 1, H318<br>Repr. 2, H361<br>STOT SE 3, H336 |

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 5 minutes. Obtain medical attention if irritation develops or persists. |
| First-Aid Measures After Eye Contact | Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists. |
| First-Aid Measures After Ingestion | Rinse mouth. Do NOT induce vomiting. Obtain medical attention. |

## 4.2. Most Important Symptoms and Effects Both Acute and Delayed

| | |
|---|---|
| Symptoms/Effects | Not expected to present a significant hazard under anticipated conditions of normal use. |
| Symptoms/Effects After Inhalation | Prolonged exposure may cause irritation. |
| Symptoms/Effects After Skin Contact | Prolonged exposure may cause skin irritation. |
| Symptoms/Effects After Eye Contact | May cause slight irritation to eyes. |
| Symptoms/Effects After Ingestion | Ingestion may cause adverse effects. |
| Chronic Symptoms | None expected under normal conditions of use. |

## 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 | Water spray, fog, carbon dioxide ($CO_2$), alcohol-resistant foam, or dry chemical. |
| Unsuitable Extinguishing Media | Do not use a heavy water stream. Use of heavy stream of water may spread fire. |

### 5.2. Special Hazards Arising From the Substance or Mixture

| | |
|---|---|
| Fire Hazard | Not considered flammable but may burn at high temperatures. |
| Explosion Hazard | Product is not explosive. |
| Reactivity | Contact with water, alcohols, acids or bases, and many metals or metallic compounds can liberate flammable Hydrogen gas which can form explosive mixtures in air. |
| Hazardous Combustion Products | Carbon oxides (CO, $CO_2$). Explosive hydrogen gas. Formaldehyde. Halogenated compounds. Silicon oxides. |

### 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. |
| Protection During Firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

| | |
|---|---|
| General Measures | Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour, mist, spray). |

#### 6.1.1. For Non-Emergency Personnel

| | |
|---|---|
| Protective Equipment | Use appropriate personal protective equipment (PPE). |
| Emergency Procedures | Evacuate unnecessary personnel. |

#### 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 recognise 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. |

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 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. |
| Methods for Cleaning Up | Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. 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 | Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapours. |
| Precautions for Safe Handling | Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapours, mist, spray. |
| 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. |
| Storage Conditions | Store in accordance with applicable national storage class systems. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. |
| Incompatible Materials | Alcohols. Metals. Strong acids, strong bases, strong oxidisers. Water. |

## 7.3. Specific End Use(s)

For professional use only.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

| Silica gel, fluorinated (72319-09-6) | | |
|---|---|---|
| Austria | OEL TWA (Legal Basis:BGBl. II Nr. 254/2018) | 4 mg/m³ (also Silica manufactured through wet process-inhalable fraction) |
| Czech Republic | OEL TWA (Legal Basis:Reg. 41/2020) | 0.1 mg/m³ (respirable fraction)<br>4 mg/m³ |
| Estonia | OEL TWA (Legal Basis:Regulation No. 105) | 2 mg/m³ (amorphous-respirable dust) |
| Finland | OEL TWA (Legal Basis:HTP-ARVOT 2020) | 5 mg/m³ (Silicon dioxide, amorphous) |
| Germany | OEL TWA (Legal Basis:TRGS 900) | 4 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction) |
| Ireland | OEL TWA (Legal Basis:2020 COP) | 6 mg/m³ (total inhalable dust)<br>2.4 mg/m³ (respirable dust) |
| Ireland | OEL STEL (Legal Basis:2020 COP) | 18 mg/m³ (calculated-respirable dust)<br>7.2 mg/m³ (calculated-respirable dust) |
| Latvia | OEL TWA (Legal Basis:Reg. No. 325) | 1 mg/m³ |
| Norway | OEL TWA (Legal Basis:FOR-2020-04-06-695) | 1.5 mg/m³ (respirable dust) |
| Norway | OEL STEL (Legal Basis:FOR-2020-04-06-695) | 3 mg/m³ (value calculated-respirable dust) |
| Slovenia | OEL TWA (Legal Basis:No. 79/19) | 4 mg/m³ (inhalable fraction, gel) |
| Switzerland | OEL TWA (Legal Basis:OLVSNAIF) | 4 mg/m³ (including Silica, amorphous-inhalable dust) |

| 3-Butyn-2-ol, 2-methyl- (115-19-5) | | |
|---|---|---|
| Austria | OEL TWA (Legal Basis:BGBl. II Nr. 254/2018) | 3 mg/m³ |
| Austria | OEL TWA (Legal Basis:BGBl. II Nr. 254/2018) | 0.9 ppm |
| Austria | OEL STEL (Legal Basis:BGBl. II Nr. 254/2018) | 6 mg/m³ |
| Austria | OEL STEL (Legal Basis:BGBl. II Nr. 254/2018) | 1.8 ppm |
| Germany | OEL TWA (Legal Basis:TRGS 900) | 3 mg/m³ |
| Germany | OEL TWA (Legal Basis:TRGS 900) | 0.9 ppm |
| Slovenia | OEL TWA (Legal Basis:No. 79/19) | 3 mg/m³ (2-Methylbut-3-on-2-ol) |
| Slovenia | OEL TWA (Legal Basis:No. 79/19) | 0.9 ppm (2-Methylbut-3-on-2-ol) |

| | | |
|---|---|---|
| 3-Butyn-2-ol, 2-methyl- (115-19-5) | | |
| Slovenia | OEL STEL (Legal Basis:No. 79/19) | 6 mg/m³ (2-Methylbut-3-on-2-ol) |
| Slovenia | OEL STEL (Legal Basis:No. 79/19) | 1.8 ppm (2-Methylbut-3-on-2-ol) |

### 8.2. Exposure Controls

| | |
|---|---|
| Appropriate Engineering Controls | Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. |
| Personal Protective Equipment | Gloves. Protective clothing. Protective goggles. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment. |

| | |
|---|---|
| Materials for Protective Clothing | Chemically resistant materials and fabrics. |
| 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 PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

| | |
|---|---|
| Physical State | Liquid |
| Colour, Appearance | Colourless |
| Odour | Odourless |
| 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 | No data available |
| Flash Point | > 135 °C (275 °F) |
| Auto-Ignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Flammability | Not applicable |
| Vapour Pressure | No data available |
| Relative Vapour Density At 20 °C | No data available |
| Relative Density | > 1 |
| Solubility | No data available |
| Partition Coefficient n-Octanol/Water | No data available |
| Viscosity | No data available |
| Explosive Properties | No data available |
| Oxidising Properties | No data available |
| Explosive Limits | No data available |

| | |
|---|---|
| Particle Aspect Ratio | Not applicable |
| Particle Aggregation State | Not applicable |
| Particle Agglomeration State | Not applicable |
| Particle Specific Surface Area | Not applicable |
| Particle Dustiness | Not applicable |

### 9.2. Other Information

| | |
|---|---|
| VOC content | < 1 % |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Contact with water, alcohols, acids or bases, and many metals or metallic compounds can liberate flammable Hydrogen gas which can form explosive mixtures in air.

### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerisation will not occur. Evolved hydrogen gas is flammable and may form explosive mixtures with air.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials

Alcohols. Metals. Strong acids, strong bases, strong oxidisers. Water.

### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, $CO_2$). Halogenated compounds. Silicon oxides. Will decompose above 150 °C (>300 °F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitiser. Formaldehyde can also cause respiratory and eye irritation. May produce explosive hydrogen gas on contact with incompatibilities or upon thermal decomposition.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Hazard Classes As Defined In Regulation (EC) No 1272/2008

| | |
|---|---|
| Likely Routes of Exposure | Dermal; Eye contact; Ingestion |
| Acute Toxicity (Oral) | Not classified. (Based on available data, the classification criteria are not met) |
| Acute Toxicity (Dermal) | Not classified. (Based on available data, the classification criteria are not met) |
| Acute Toxicity (Inhalation) | Not classified. (Based on available data, the classification criteria are not met) |

| 3-Butyn-2-ol, 2-methyl- (115-19-5) | |
|---|---|
| LD50 Oral Rat | 1950 mg/kg (Source: NLM_CIP) |
| LD50 Dermal Rat | > 2000 mg/kg (no deaths) |
| LC50 Inhalation Rat | > 21300 mg/m³ (Exposure time: 4 h Source: OECD_SIDS) |
| LC50 Inhalation Rat | > 21.3 mg/l/4h |

| | |
|---|---|
| Skin Corrosion/Irritation | Not classified. (Based on available data, the classification criteria are not met) |
| Eye Damage/Irritation | Not classified. (Based on available data, the classification criteria are not met) |
| Respiratory or Skin Sensitisation | Not classified. (Based on available data, the classification criteria are not met) |

| | |
|---|---|
| Germ Cell Mutagenicity | Not classified. (Based on available data, the classification criteria are not met) |
| Carcinogenicity | Not classified. (Based on available data, the classification criteria are not met) |
| Reproductive Toxicity | Not classified. (Based on available data, the classification criteria are not met) |
| Specific Target Organ Toxicity (Single Exposure) | Not classified. (Based on available data, the classification criteria are not met) |
| Specific Target Organ Toxicity (Repeated Exposure) | Not classified. (Based on available data, the classification criteria are not met) |
| Aspiration Hazard | Not classified. (Based on available data, the classification criteria are not met) |
| Symptoms/Injuries After Inhalation | Prolonged exposure may cause irritation. |
| Symptoms/Injuries After Skin Contact | Prolonged exposure may cause skin irritation. |
| Symptoms/Injuries After Eye Contact | May cause slight irritation to eyes. |
| Symptoms/Injuries After Ingestion | Ingestion may cause adverse effects. |
| Chronic Symptoms | None expected under normal conditions of use. |

### 11.2. Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

| | |
|---|---|
| Hazardous To The Aquatic Environment, Short–Term (Acute) | Not classified. (Based on available data, the classification criteria are not met) |
| Hazardous To The Aquatic Environment, Long–Term (Chronic) | Not classified. (Based on available data, the classification criteria are not met) |

| 3-Butyn-2-ol, 2-methyl- (115-19-5) | |
|---|---|
| LC50 Fish | 3120 – 3480 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| EC50 Crustacea | 500 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| EC50 Other aquatic organisms | 500 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus) |
| LC50 Fish | 2200 – 4600 mg/l (Exposure time: 96 h - Species: Leuciscus idus [static]) |
| EC50 Other aquatic organisms | 500 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus) |

### 12.2. Persistence and Degradability

| FS-3511 Part B | |
|---|---|
| Persistence and Degradability | Not established. |

### 12.3. Bioaccumulative Potential

| FS-3511 Part B | |
|---|---|
| Bioaccumulative Potential | Not established. |

| 3-Butyn-2-ol, 2-methyl- (115-19-5) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 0.318 (at 25 °C) |

### 12.4. Mobility in Soil
No additional information available

### 12.5. Results of PBT and vPvB Assessment
Does not contain any PBT/vPvB substances >= 0,1% assessed in accordance with REACH Annex XIII

### 12.6. Endocrine Disrupting Properties
Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

### 12.7. 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. |
| Ecology - Waste Materials | Avoid release to the environment. |

## 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

### 14.1. UN Number or ID Number
Not regulated for transport

### 14.2. UN Proper Shipping Name
Not regulated for transport

### 14.3. Transport Hazard Class(es)
Not regulated for transport

### 14.4. Packing Group
Not regulated for transport

### 14.5. Environmental Hazards
Not regulated for transport

### 14.6. Special Precautions For User
No additional information available

### 14.7. Maritime Transport in Bulk According to IMO instruments
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

##### 15.1.1.1. REACH Annex XVII Information
Contains no REACH substances with Annex XVII restrictions

##### 15.1.1.2. REACH Candidate List Information
Contains no substance(s) listed on the REACH Candidate List

#### 15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

#### 15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### 15.1.1.5. REACH Annex XIV Information

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### 15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

No additional information available

#### 15.1.1.7. EC Inventory Information

No additional information available

#### 15.1.1.8. Other Information

No additional information available

### 15.1.2. National Regulations

No additional information available

### 15.1.3. International Inventory Lists

No additional information available

## 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

# SECTION 16: OTHER INFORMATION

| | |
|---|---|
| Date of Preparation or Latest Revision | 23/10/2024 |
| 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) 2020/878 |

Full Text of H-statements:

| | |
|---|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Narcosis |
| H225 | Highly flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H318 | Causes serious eye damage. |
| H336 | May cause drowsiness or dizziness. |
| H361 | Suspected of damaging fertility or the unborn child. |

## Indication of Changes

| Section | Change | Date Changed | Version |
|---|---|---|---|
| 1 | Language modified | 23/10/2024 | 4.0 |
| 2 | Language modified | 23/10/2024 | 4.0 |
| 3 | Data modified; Language modified | 23/10/2024 | 4.0 |
| 4 | Language modified | 23/10/2024 | 4.0 |
| 5 | Language modified | 23/10/2024 | 4.0 |
| 6 | Language modified | 23/10/2024 | 4.0 |
| 7 | Language modified | 23/10/2024 | 4.0 |
| 8 | Data modified; Language modified | 23/10/2024 | 4.0 |
| 9 | Data modified | 23/10/2024 | 4.0 |
| 10 | Language modified | 23/10/2024 | 4.0 |
| 11 | Data modified; Language modified | 23/10/2024 | 4.0 |
| 12 | Data modified; Language modified | 23/10/2024 | 4.0 |
| 13 | Language modified | 23/10/2024 | 4.0 |
| 14 | Language modified | 23/10/2024 | 4.0 |
| 15 | Language modified | 23/10/2024 | 4.0 |
| 16 | Language modified | 23/10/2024 | 4.0 |

## 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
STOT - Specific Target Organ Toxicity
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

## Limit Value Legal Basis*

*Includes the below and any related regulations/provisions, and subsequent amendements

**EU - 2019/1831 EU in accor. with 98/24/EC** - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.
**EU - 2019/1243/EU, and 98/24/EC)** - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.
**Austria - BGBl. II Nr. 254/2018** - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBL. II) No 119/2004) & BGBl. II No. 242/2006, BGBl. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.
**Austria - BLV BGBl. II Nr. 254/2018** - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018
**Belgium - Royal Decree 21/01/2020** - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)
**Bulgaria - Reg. No. 13/10** -
Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex № 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020
**Croatia - OG No. 91/2018** - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018
**Cyprus - KDP 16/2019** - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.
**Czech Republic - Reg. 41/2020** - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended
**Czech Republic - Decree No. 107/2013** - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents
**Denmark - BEK No. 698 of 28/05/2020** - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020
**Estonia - Regulation No. 105** - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.
**Gibraltar - LN. 2018/131** - Factories (Control of Chemical Agents at Work) Regulations 2003 LN. 2003/035, amended by LN. 2008/035, LN. 2008/050, LN. 2012/021, LN. 2015/143, LN. 2018/181.
**Greece - PWHSE** - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.
**Hungary - Decree 05/2020** - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents
**Ireland - 2020 COP** - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1
**Italy - Decree 81** - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020
**Italy - IMDFN1** - Ministerial Decree of August 20, 1999 Final Note (1)
**Latvia - Reg. No. 325** - Cabinet of Ministers Regulation No. 325 - Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and No. 11.
**Lithuania - HN 23:2011** - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272.
**Luxembourg - A-N 684** - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018
**Malta - MOSHAA Ch. 424** - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57.
**Netherlands- OWCRLV** - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.
**Norway - FOR-2020-04-060695** - Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, FOR-2011-12-06-1358, Updated by: FOR-2020-04-06-695, FOR-2020-03-23-402, FOR-2018-12-20-2186, FOR-2018-08-21-1255, FOR-2017-12-20-2353.
**Poland - Dz. U. 2020 Nr. 61** - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.
**Portugal - Portuguese Norm NP 1796:2014** - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.
**Romania - Gov. Dec. No 1.218** - Governmental Decision No. 1.218 from 06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.
**Slovakia - Gov. Decree 33/2018** - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents
**Slovenia - No. 79/19** - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III - Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks

**Finland - HTP-ARVOT 2020** - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of Social Affairs and Health 2020:24 Annexes1, 2 and 3.
**France - INRS ED 984** - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119, and Decree 2019-1487.
**France - Decree 2009-1570** - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.
**Germany - TRGS 900** - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020
**Germany - TRGS 903** - Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, latest amendment March, 2020
related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001 . Annex I - List of Binding Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19
**Spain - AFS 2018:1** - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019
**Sweden - AFS 2018:1** - Statute Book of the Swedish Work Environment Authority, AFS 2018:1
The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values
**Switzerland - OLVSNAIF** - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of MAK Values.

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