

# MED-4800-1

## Safety Data Sheet

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

Revision date: 04/11/2015

Date of issue: 16/08/2013

Version: 2.1

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

### 1.1. Product identifier

|               |   |
|---------------|---|
| Product form  | : Mixture                                 |
| Product Name  | : MED-4800-1                              |
| Synonyms      | : Dispersions of powder in silicone fluid |
| Product group | : Commercial product                      |

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

#### 1.2.1. Relevant identified uses

|                                  |                              |
|----------------------------------|------------------------------|
| Industrial/Professional use spec | : For professional use only. |
| Use of the substance/mixture     | : Adhesive                   |
| Function or use category         | : Lubricants and additives   |

#### 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](mailto:ehs@nusil.com)  
[www.nusil.com](http://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]

Not classified

### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

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

No labelling applicable

### 2.3. Other Hazards

Other hazards not contributing to the classification : Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

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### 3.2. Mixture

| Name              | Product identifier                       | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-------------------|--|---------|---|
| Titanium dioxide  | (CAS No) 13463-67-7<br>(EC no) 236-675-5 | 40 - 45 | Not classified  |
| Silica, amorphous | (CAS No) 7631-86-9<br>(EC no) 231-545-4  | < 5     | 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 if possible).
- First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
- First-aid measures after skin contact : Rinse immediately with plenty of water. 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/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/injuries after inhalation : Overexposure may be irritating to the respiratory system.
- Symptoms/injuries after skin contact : Contact during a long period may cause slight irritation.
- Symptoms/injuries after eye contact : Direct contact with the eyes is likely irritating.
- Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects.
- Chronic symptoms : None expected under normal conditions of use.

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

If you feel unwell, seek medical advice (show the label where possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire. Application of water stream to hot product may cause frothing and increase fire intensity.

### 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 : Stable at ambient temperature and under normal conditions of use.

### 5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire.

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- |                                |  |
|--------------------------------|--|
| Firefighting instructions      | : Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapours from decomposition.  |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection.                          |
| Other information              | : Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapours. Refer to Section 9 for flammability properties. |

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- |                  |   |
|------------------|---|
| General measures | : Avoid all contact with skin, eyes, or clothing. Avoid breathing vapour, mist, spray, gas. |
|------------------|---|

#### 6.1.1. For non-emergency personnel

- |                      |  |
|----------------------|--|
| Protective equipment | : Use appropriate personal protection equipment (PPE). |
| Emergency procedures | : Evacuate unnecessary personnel.                      |

#### 6.1.2. For emergency responders

- |                      |   |
|----------------------|---|
| Protective equipment | : Equip cleanup crew with proper protection.                              |
| Emergency procedures | : Stop leak if safe to do so. Eliminate ignition sources. Ventilate area. |

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material 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. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. |

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- |                                   |   |
|-----------------------------------|---|
| Additional hazards when processed | : When heated, material emits harmful fumes. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. |
| Hygiene measures                  | : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.                        |

### 7.2. Conditions for safe storage, including any incompatibilities

- |                       |   |
|-----------------------|---|
| Technical measures    | : Comply with applicable regulations.   |
| Storage conditions    | : Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. |
| Incompatible products | : Strong acids. Strong bases. Strong oxidizers.   |
| Storage area          | : Store away from heat.   |

### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| <b>Titanium dioxide (13463-67-7)</b> |  |   |
|--------------------------------------|--|---|
| Austria                              | MAK (mg/m <sup>3</sup> )                                   | 5 mg/m <sup>3</sup> (alveolar dust, respirable fraction)  |
| Austria                              | MAK Short time value (mg/m <sup>3</sup> )                  | 10 mg/m <sup>3</sup> (alveolar dust, respirable fraction)   |
| Belgium                              | Limit value (mg/m <sup>3</sup> )                           | 10 mg/m <sup>3</sup>  |
| Bulgaria                             | OEL TWA (mg/m <sup>3</sup> )                               | 10,0 mg/m <sup>3</sup> (respirable dust)  |
| Croatia                              | GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> ) | 10 mg/m <sup>3</sup> (total dust)<br>4 mg/m <sup>3</sup> (respirable dust)                                  |
| France                               | VME (mg/m <sup>3</sup> )                                   | 10 mg/m <sup>3</sup>  |
| Greece                               | OEL TWA (mg/m <sup>3</sup> )                               | 10 mg/m <sup>3</sup> (inhalable fraction)<br>5 mg/m <sup>3</sup> (respirable fraction)                      |
| USA ACGIH                            | ACGIH TWA (mg/m <sup>3</sup> )                             | 10 mg/m <sup>3</sup>  |
| Latvia                               | OEL TWA (mg/m <sup>3</sup> )                               | 10 mg/m <sup>3</sup>  |
| Spain                                | VLA-ED (mg/m <sup>3</sup> )                                | 10 mg/m <sup>3</sup>  |
| Switzerland                          | VME (mg/m <sup>3</sup> )                                   | 3 mg/m <sup>3</sup> (respirable dust)   |
| United Kingdom                       | WEL TWA (mg/m <sup>3</sup> )                               | 10 mg/m <sup>3</sup> (total inhalable)<br>4 mg/m <sup>3</sup> (respirable)                                  |
| United Kingdom                       | WEL STEL (mg/m <sup>3</sup> )                              | 30 mg/m <sup>3</sup> (calculated-total inhalable)<br>12 mg/m <sup>3</sup> (calculated-respirable)           |
| Denmark                              | Grænseværdie (langvarig) (mg/m <sup>3</sup> )              | 6 mg/m <sup>3</sup>   |
| Estonia                              | OEL TWA (mg/m <sup>3</sup> )                               | 5 mg/m <sup>3</sup>   |
| Ireland                              | OEL (8 hours ref) (mg/m <sup>3</sup> )                     | 10 mg/m <sup>3</sup> (total inhalable dust)<br>4 mg/m <sup>3</sup> (respirable dust)                        |
| Ireland                              | OEL (15 min ref) (mg/m <sup>3</sup> )                      | 30 mg/m <sup>3</sup> (calculated-total inhalable dust)<br>12 mg/m <sup>3</sup> (calculated-respirable dust) |
| Lithuania                            | IPRV (mg/m <sup>3</sup> )                                  | 5 mg/m <sup>3</sup>   |
| Norway                               | Grænseverdier (AN) (mg/m <sup>3</sup> )                    | 5 mg/m <sup>3</sup>   |
| Norway                               | Grænseverdier (Korttidsverdi) (mg/m <sup>3</sup> )         | 5 mg/m <sup>3</sup>   |
| Poland                               | NDS (mg/m <sup>3</sup> )                                   | 10,0 mg/m <sup>3</sup> (<2% free crystalline silica and containing no asbestos-inhalable fraction)          |
| Romania                              | OEL TWA (mg/m <sup>3</sup> )                               | 10 mg/m <sup>3</sup>  |
| Romania                              | OEL STEL (mg/m <sup>3</sup> )                              | 15 mg/m <sup>3</sup>  |
| Sweden                               | nivågränsvärde (NVG) (mg/m <sup>3</sup> )                  | 5 mg/m <sup>3</sup> (total dust)  |
| Portugal                             | OEL TWA (mg/m <sup>3</sup> )                               | 10 mg/m <sup>3</sup>  |
| Portugal                             | OEL chemical category (PT)                                 | A4 - Not Classifiable as a Human Carcinogen   |
| <b>Silica, amorphous (7631-86-9)</b> |  |   |
| Austria                              | MAK (mg/m <sup>3</sup> )                                   | 4 mg/m <sup>3</sup> (also Silica manufactured through wet process-inhalable fraction)                       |

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| <b>Silica, amorphous (7631-86-9)</b> |   |   |
|--------------------------------------|---|---|
| Germany                              | TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> ) | 4 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-inhalable fraction) |
| Latvia                               | OEL TWA (mg/m <sup>3</sup> )                                    | 1 mg/m <sup>3</sup>   |
| Switzerland                          | VME (mg/m <sup>3</sup> )  | 4 mg/m <sup>3</sup> (inhalable dust, also manufactured in wet processing)   |
| United Kingdom                       | WEL TWA (mg/m <sup>3</sup> )                                    | 6 mg/m <sup>3</sup> (inhalable dust)<br>2,4 mg/m <sup>3</sup> (respirable dust)   |
| United Kingdom                       | WEL STEL (mg/m <sup>3</sup> )                                   | 18 mg/m <sup>3</sup> (calculated-inhalable dust)<br>7,2 mg/m <sup>3</sup> (calculated-respirable dust)                                  |
| Czech Republic                       | Expoziční limity (PEL) (mg/m <sup>3</sup> )                     | 0,1 mg/m <sup>3</sup> (respirable fraction)<br>4,0 mg/m <sup>3</sup>  |
| Estonia                              | OEL TWA (mg/m <sup>3</sup> )                                    | 2 mg/m <sup>3</sup> (respirable dust)   |
| Finland                              | HTP-arvo (8h) (mg/m <sup>3</sup> )                              | 5 mg/m <sup>3</sup>   |
| Ireland                              | OEL (8 hours ref) (mg/m <sup>3</sup> )                          | 6 mg/m <sup>3</sup> (total inhalable dust)<br>2,4 mg/m <sup>3</sup> (respirable dust)   |
| Ireland                              | OEL (15 min ref) (mg/m <sup>3</sup> )                           | 18 mg/m <sup>3</sup> (calculated-total inhalable dust)<br>7,2 mg/m <sup>3</sup> (calculated-respirable dust)                            |
| Norway                               | Grenseverdier (AN) (mg/m <sup>3</sup> )                         | 1,5 mg/m <sup>3</sup> (respirable dust)   |
| Norway                               | Grenseverdier (Korttidsverdi) (mg/m <sup>3</sup> )              | 1,5 mg/m <sup>3</sup> (respirable dust)   |
| Slovakia                             | NPHV (priemerná) (mg/m <sup>3</sup> )                           | 4,0 mg/m <sup>3</sup> (total aerosol)   |
| Slovenia                             | OEL TWA (mg/m <sup>3</sup> )                                    | 0,3 mg/m <sup>3</sup> (respirable fraction, fume)   |

### 8.2. Exposure controls

Appropriate engineering controls

: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal protective equipment

: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for protective clothing

: Not required for normal conditions of use.

Hand protection

: Protective gloves.

Eye protection

: In case of splash hazard: chemical goggles or safety glasses.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: Use approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental exposure controls

: Do not allow the product to be released into the environment.

Consumer exposure controls

: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state

: Liquid

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|  |                     |
|--|---------------------|
| Colour                                     | : White             |
| Odour                                      | : Odorless          |
| Odour threshold                            | : No data available |
| pH   | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : No data available |
| Freezing point                             | : No data available |
| Boiling point                              | : No data available |
| Flash point                                | : No data available |
| Auto-ignition temperature                  | : No data available |
| Decomposition temperature                  | : No data available |
| Flammability (solid, gas)                  | : No data available |
| 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

VOC content : < 1 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers.

### 10.6. Hazardous decomposition products

Thermal decomposition generates: Carbon monoxide. Carbon dioxide. Silicon oxides. Low molecular weight hydrocarbon fragments. Formaldehyde. Will decompose above 150 °C (>300° F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

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|  |                                 |
|--|---------------------------------|
| <b>Titanium dioxide (13463-67-7)</b>               |                                 |
| LD50 oral rat                                      | > 10000 mg/kg                   |
| <b>Silica, amorphous (7631-86-9)</b>               |                                 |
| LD50 oral rat                                      | > 5000 mg/kg                    |
| LD50 dermal rabbit                                 | > 2000 mg/kg                    |
| LC50 inhalation rat (mg/l)                         | > 2,2 mg/l (Exposure time: 1 h) |
| Skin corrosion/irritation                          | : Not classified                |
| Serious eye damage/irritation                      | : Not classified                |
| Respiratory or skin sensitisation                  | : Not classified                |
| Germ cell mutagenicity                             | : Not classified                |
| Carcinogenicity                                    | : Not classified                |
| Reproductive toxicity                              | : Not classified                |
| Specific target organ toxicity (single exposure)   | : Not classified                |
| Specific target organ toxicity (repeated exposure) | : Not classified                |
| Aspiration hazard                                  | : Not classified                |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                                      |   |
|--------------------------------------|---|
| <b>Silica, amorphous (7631-86-9)</b> |   |
| LC50 fish 1                          | 5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static]) |
| EC50 Daphnia 1                       | 7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)         |

### 12.2. Persistence and degradability

### 12.3. Bioaccumulative potential

|                                      |                               |
|--------------------------------------|-------------------------------|
| <b>Silica, amorphous (7631-86-9)</b> |                               |
| BCF fish 1                           | (no bioaccumulation expected) |

### 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

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose of waste material in accordance with all local, regional, national, and international regulations.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Not applicable

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### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

No additional information available

#### 14.6.2. Transport by sea

No additional information available

#### 14.6.3. Air transport

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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : < 1 %

#### 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:

| Section | Section Header                                   | Change   | Date Changed |
|---------|--|--|--------------|
| 1.3     | Details of the supplier of the safety data sheet | Modified   | 02/11/2015   |
| 2       | Hazards identification                           | Modified. Removed DSD/DPD information.                             | 02/11/2015   |
| 3       | Composition/information on ingredients           | Removed not classified components.<br>Removed DSD/DPD information. | 02/11/2015   |
| 15.1    | EU-Regulations                                   | Modified   | 02/11/2015   |

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Nusil EU GHS SDS

*We believe that the information contained herein is current as of the date of this Safety Data Sheet, and is offered in good faith. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of Nusil Technology, it is the user's obligation to determine the conditions of safe use of the product.*





# **Polymer Systems** *Technology Limited*

## Silicone Sales & Services UK - Ireland - Benelux

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