

# **Material Safety Data Sheet**

Version 4.2 Revision Date 01/01/2018 Print Date 06/08/2018

# http://www.chemfaces.com

### 1. PRODUCT AND COMPANY IDENTIFICATION

GHS Product Name: Tacrolimus Product code: CFN93134

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#### 2. HAZARDS IDENTIFICATION

2.1 GHS classification
PHYSICAL HAZARDS Not classified
HEALTH HAZARDS Not classified
ENVIRONMENTAL HAZARDS Not classified

#### 2.2 GHS label elements, including precautionary statements

Pictograms or hazard symbols None

Signal word No signal word Hazard statements None

Precautionary statements: None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Tacrolimus

**CAS#**: 104987-11-3 **Purity**: >=98% **Formula**: C<sub>44</sub>H<sub>69</sub>NO<sub>12</sub> **Molecular Weight**: 804.03

Hazard Symbols: Risk Phrases:

## 4. FIRST AID MEASURES

# 4.1 Description of first aid measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a doctor.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Consult a doctor.

Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Consult a doctor. **Inhalation:** 

Remove from exposure and move to fresh air immediately. Consult a doctor.

#### 4.2 Indication of immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

#### 5. FIRE FIGHTING MEASURES

#### 5.1 Suitable extinguishing

Media: Dry chemical, foam, water spray, carbon dioxide.

**Precautions for firefighters:** Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.

### 5.2 Special protective:

equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment.

### 6. ACCIDENTAL RELEASE MEASURES

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

Avoid dust formation. Avoid breathing vapors, mist or gas.

### 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 General Information:

Use proper personal protective equipment as indicated in Section 8.

#### 6.4 Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete.

#### 7. HANDLING and STORAGE

#### 7.1 Precautions for safe handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

#### 7.2 Storage:

Store in a well closed container. Protected from air and light, refrigerate or freeze.(2-8°C)

# 7.3 Specific end uses

Use in a laboratory fume hood where possible. Refer to employer is COSHH risk assessment.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

# 8.1 Engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Control parameters: Not set up

# 8.2 Personal protective equipment:

Respiratory protection: Dust respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Eye protection: Wear safety glasses and chemical goggles if splashing is possible.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance

Powder

b) Odour

no data available

c) Odour Threshold

no data available

d) pH

no data available

e) Melting point/freezing point

no data available

f) Initial boiling point and boiling range

no data available

g) Flash point

no data available

h) Evaporation rate

no data available

i) Flammability (solid, gas)

no data available

j) Flammability or explosive limits

no data available

k) Vapour pressure

no data available

I) Vapour density

m) Relative density no data available

n) Water solubility

no data available

o) Partition coefficient:

no data available

p) Autoignition temperature

no data available

q) Decomposition temperature

no data available

r) Viscosity

no data available

s) Explosive properties

no data available

t) Oxidizing properties

no data available

#### 10 - STABILITY AND REACTIVITY

#### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical Stability

Stable under normal temperatures and pressures.

### 10.3 Conditions to Avoid

Incompatible materials, strong oxidants, heat.

# 10.4 Incompatibilities with Other Materials

Strong oxidising/reducing agents, strong acids/alkalis.

## 10.5 Hazardous Decomposition Products

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

# 10.6 Hazardous Polymerization

Has not been reported.

# 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available

Skin corrosion/irritation: No data available Serious eye damage/irritation: No data available Germ cell mutagenicity: No data available

Carcinogenicity:

IARC = No data available
NTP = No data available

Reproductive toxicity: No data available

# 12. ECOLOGICAL INFORMATION

Toxicity:no data available

Persistence and degradability:no data available Bioaccumulative potential:no data available

Mobility in soil:no data available

Results of PBT and vPvB assessment:no data available Other adverse effects:May be harmful to the aquatic environment.
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13. DISPOSAL CONSIDERATIONS
Dispose of in a manner consistent with federal, state, and local regulations.
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14. TRANSPORT INFORMATION
14.1 Hazards Class: Does not meet the criteria for classification as hazardous for transport. 14.2 UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods 14.3 Transport hazard class(es) Does not meet the criteria for classification as hazardous for transport.
15. REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture no data available 15.2 Chemical Safety Assessment no data available

#### **16. ADDITIONAL INFORMATION**

This MSDS above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

End of safety data sheet