

## NUOSPERSE W-22 Aqueous Wetting and Dispersing Agent

**1. Identification of the substance or mixture and of the supplier****1.1 Product identifier (name) :** NUOSPERSE W-22 Aqueous Wetting and Dispersing Agent**1.2 Other means of identification :** -**1.3 Recommended use of the chemical and restrictions on use :** -**1.4 Manufacturer / Supplier :****Name :** Elementis Specialties, Asia      **Telephone / Telefax :** Tel.: +86-21-57740348 / +886-3-5984035**Address :** No. 99, LianYang Road, Songjiang Industrial Zone, Zip : 201613, Shanghai China**Address :** 92, Kuang-Fu North Road, Hsinchu Industrial Park, Hukou, Hsinchu, Taiwan**1.5 Emergency telephone number :** Tel.: +86-21-57740348 / +886-3-5984035**2. Hazards identification****2.1 GHS Classification :** Acute toxicity(Oral) Category 4 · Serious eye damage/eye irritation Category 2B · Specific target organ systemic toxicity following single exposure Category 3**2.2 GHS Label elements :****Symbols (/ pictogram) :** Exclamation mark**Signal words :** Warning**Hazardous statements :** Harmful if swallowed

Causes eye irritation

May cause respiratory irritation or may cause drowsiness or dizziness

**Precautionary statements :** Wear suitable protective clothing, gloves and eye/face protection

Keep container tightly closed

Do not breathe gas/fumes/vapour/spray

**2.3 Other hazards :** -**3. Composition/information on ingredients****3.1 Chemical characterization :** Aqueous Wetting and Dispersing Agent

Identity (name) of hazardous ingredients	CAS number	Concentration or concentration ranges
2,4,7,9-Tetramethyl-5-decyne-4,7-diol	126-86-3	2.5 - 10
Nonylphenol, branched, ethoxylated	68412-54-4	2.5 - 10

**4. First-aid Measures****4.1 The first-aid measures for different routes of exposure:****Inhalation:** Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.

If breathing is difficult, give oxygen.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If eye irritation persists, consult a specialist.

**Skin contact:** Wash off immediately with soap and plenty of water.

If a person feels unwell or symptoms of skin irritation appear, consult a physician.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label.

Do not induce vomiting without medical advice.

Never give anything by mouth to an unconscious person.

**4.2 The most important symptoms / hazardous effects :** -**4.3 The protection of first-aid personnel:-****4.4 Notes to physicians:** -**5. Fire-fighting measures:****5.1 Suitable extinguishing media :** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.**5.2 Specific hazards may be encountered during fire-fighting :** Emits toxic fumes under fire conditions.**5.3 Specific fire-fighting methods:** -**5.4 Special protective equipment and precautions for firefighters :** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

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**6. Accidental release measures:**

- 6.1 Personal precautions:** Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.  
Use personal protective equipment.
- 6.2 Environmental precautions :** Prevent further leakage or spillage if safe to do so.  
Do not flush into surface water or sanitary sewer system.
- 6.3 Methods for cleaning up :** Sweep up and shovel into suitable containers for disposal.  
Prevent product from entering drains.  
Clean thoroughly. Local authorities should be advised if significant spillages cannot be contained.

**7. Safe handling and storage measures**

- 7.1 Handling :** Avoid contact with skin, eyes and clothing.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash hands thoroughly after handling.
- 7.2 Storage :** DO NOT FREEZE.  
Keep container tightly closed.  
Store at room temperature in the original container.

**8. Exposure controls and personal protection**

- 8.1 Engineering controls :** Maintain adequate ventilation to keep hazardous ingredients below their PELs or TLVs. Use NIOSH/MSHA approved respirator whenever exposure limits exceeded.
- 8.2 Control parameters (e.g. occupational exposure limit value or biological limit values)**

Chemical	8 hours time weighted average exposure limits (TWA)	Short-term exposure limits (STEL)	maximum exposure limits ( CEILING)	Biological limit values (BEIs)
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- 8.3 Personal protective equipment:**  
**respiratory protection:** In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.  
**hand protection:** protective gloves, neoprene gloves  
**eye protection:** safety glasses  
**skin and body protection:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- 8.4 Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties:**

<b>9.1 Appearance:</b> Amber Liquid	<b>9.2 Odour:</b> Ammoniacal
<b>9.3 Odour threshold:</b> -	<b>9.4 Melting point / freezing point:</b> < 0 °C
<b>9.5 pH:</b> 9.5 - 10.0	<b>9.6 Initial boiling point / boiling range:</b> 187 °C
<b>9.7 Flammability (solid, gas) :</b> -	<b>9.8 Flashpoint:</b> 107 °C
<b>9.9 Decomposition temperature:</b> -	<b>Test method:</b> ASTM D3278
<b>9.10 Autoignition temperature:</b> -	<b>9.11 Explosion limits:</b> -
<b>9.12 Vapor pressure:</b> < 1.0 mm Hg (25°C) 23.0 hPa (20°C)	<b>9.13 Vapor density:</b> 2.62
<b>9.14 Density:</b> 1.06 g/cm <sup>3</sup>	<b>9.15 Solubility:</b> miscible with water
<b>9.16 Partition coefficient: n-Octanol/water (log Kow):</b> -	<b>9.17 Evaporation rate:</b> < 1.0

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**10. Stability and reactivity:**

**10.1 Chemical stability:** stable at normal conditions

**10.2 Possible hazardous reactions occurring under specific conditions:** will not occur

**10.3 Conditions to avoid:** heat, flames and sparks

**10.4 Materials to avoid (incompatible materials):** oxidizing agents

**10.5 Hazardous decomposition products:** no decomposition if stored normally

**11. Toxicological information:**

**11.1 The likely routes of exposure :** Inhalation, skin contact, eye contact and accidental ingestion.

**11.2 Symptoms:** -

**11.3 Acute toxicity: :**

**inhalation:** May cause irritation of respiratory tract.

**skin contact:** May cause skin irritation and/or dermatitis.

**eye contact:** Contact with eyes may cause irritation.

**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Numerical measures of toxicity : LD<sub>50</sub> : 200 - 2000 mg/kg (rat,literature,Oral)  
( Nonylphenol, branched, ethoxylated)

LC<sub>50</sub> : -

Corrosive /irritant: -

**11.4 Chronic toxicity or long term toxicity: -**

**12. Ecological information:**

**12.1 Ecotoxicity :**

LC<sub>50</sub> : -

EC<sub>50</sub> : -

Biological concentration factor (BCF) : -

**12.2 Persistence and degradability : -**

**12.3 Bioaccumulative potential: -**

**12.4 Mobility in soil: -**

**12.5 Other adverse effects: -**

**13. Disposal considerations**

**13.1 Methods of waste disposal:**

To the best of Albemarle's knowledge, this product is not regulated by CERCLA/RCRA as a hazardous waste or material. However, this product has not been tested for the toxicity characteristic via the Toxicity Characteristic Leaching Procedure. Therefore, it may be disposed of as an industrial waste in a manner acceptable to good waste management practice and in compliance with applicable local, state and federal regulations.

**14. Transport information**

**14.1 UN number: -**

**14.2 UN proper shipping name:** not regulated

**14.3 Transport hazard class(es) : -**

**14.4 Packing group: -**

**14.5 Marine pollutant (Yes/No) : No**

**14.6 Special precautions or transport method(s): -**

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**15. Regulatory information:**

**15.1 Applicable Laws:**

- Rules on Workers Health and Safety Facilities.
- Regulation of Labelling and Hazard Communication of Dangerous and Harmful Materials.
- Traffic Safety Rules.
- Standards for the Storage, Cleanup, Handling and Disposal of Industrial Waste.
- Public Hazardous Materials and Flammable Pressurized Gases Establishment Standards and Safety Control Regulations.

**16. Other information**

**16.1 Literature references : -**

**16.2 Organization that prepared the MSDS :**

**name :** Elementis Specialties, Asia

**Address/Telephone :**

92, Kuang-Fu North Road, Hsinchu Industrial Park, Hukou, Hsinchu, Taiwan / +886-3-5984035

**16.3 Person who prepared the MSDS :**

**Name :** Product Stewardship

**16.4 Date the MSDS was prepared/revised : 2010.05.10**

Note: “—” means “not available”. “/” means “not applicable”.

*This information contained herein is base on the present state of our knowledge. It characterizes the product with regard to the aspirate safety precautions. It does not represent a guarantee of the properties of the product.*