

HAGEN automation



This product contains 4 individual tins of lubricant - each with individual MSDS listed below

Micronised MoS₂ - Molybdenum Disulphide starts on page 1 of 14

Nanoparticle hBN - Hex Boron Nitride starts on page 5 of 14

Micronised WS₂ - Tungsten Disulphide starts on page 8 of 14

Micronised PTFE - PTFE Powder - starts on page 12 of 14

Micronised MoS₂

1. IDENTIFICATION

Material: Molybdenum Disulphide Powdered Lubricant supplied in a tin or tube

Supplier: Hagen Automation Ltd

Address:

Hagen Automation, Greybern House, Templars Way, Sharnbrook, MK441PY United Kingdom

Emergency Tel: 0044 7739 854 883

2. COMPOSITION

Molybdenum disulphide CAS NUMBER 1317-33-5 100%

Symptoms relating to use: Not classified as Hazardous in normal usage.

3. HAZARDS IDENTIFICATION

Emergency Overview

WHMIS Classification

Not WHMIS controlled.

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 1

Flammability: 0

Physical hazards: 0

Potential Health Effects:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

4. FIRST AID MEASURES

Hagen Automation Ltd

UK Company Number 09894246

Rev 1

Inhalation - if symptoms of pulmonary involvement develop, remove from exposure and seek medical attention.

Skin contact - if irritation occurs, thoroughly wash affected area with mild soap and water and prevent further contact, contact medical help if irritation persists.

Eye contact - if irritation occurs, flush with copious amounts of Water, contact medical help if irritation persists.

Ingestion - if substantial quantities are swallowed, give person (if conscious) a large quantity of water to wash mouth out, and seek medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: N/A

Flammability Limits: N/A

In case of fire, may emit toxic fumes.

No Fire Hazard, Use extinguishing agents suitable for surrounding fire.

Special Procedures: Use a self-contained breathing apparatus to prevent inhalation of Dust, Mist or fumes that may be generated during fire fighting activities.

No Unusual fire or explosion hazards.

Suitable extinguishing media: Dry Sand, Special Metal extinguishing powder.

6. ACCIDENTAL RELEASE MEASURES

Note: Very slippery, proceed with caution!

If Spilled or Released: Ventilate area of spill, clean up using methods which avoid dust generation, such as Vacuuming with appropriate filter, wet dust mop, or wet clean up.

Precautionary measures regarding persons: Remove source of ignition. Avoid formation and deposition of dust. Ensure effective ventilation.

Use the PPE (Personal Protective Equipment) as per chapter 8

(European Union: Note German Technical Regulation on Dangerous Substances No. 200/201)

7. HANDLING AND STORAGE

Maintain good housekeeping procedures to prevent accumulation of dust. Use clean-up methods which minimise dust generation.

Storage: Keep in sealed containers in a dry place.

(European Union: Observe the rules contained in the VCI concept for separate/common storage. Observe official regulations. Storage class as per VCI: 11)

7.1 Specific End Use(s):

Powdered Lubricant. Lubricant additive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Use an appropriate approved respirator to with filter type P according to DIN EN 143. If airborne dust levels exceed the TLV, appropriate requirements set forth in 29 CFR 1910.134 should be met.

Wash thoroughly after handling and before eating, smoking and end of work shift. Do not shake clothing to remove dust. Avoid inhalation, ingestion and direct skin contact

Ventilation: Use local exhaust which is adequate to limit exposure levels below TLV.

Gloves: Recommended
Eye Protection: Recommended
Respirator/mask: Recommended

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour: GREY POWDER, NO ODOUR

PH value: N/A

Boiling Point: N/A

Melting Point: 2375 C

C (decomposition)

Vapor Pressure (mm HG): N/A

Vapor Density (air=1): N/A

Solubility in Water: N/A

Specific Gravity: (H₂O=1) 5.06g/cm³

Percent Volatile by Volume: N/A

Evaporation Rate: N/A

How Best Monitored: AIR SAMPLE

Non-Hazardous Ingredients

Material: Hex Boron Nitride

Percent by Weight: 100

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: Moisture

Incompatible Materials to Avoid: Strong oxidising agents

Hazardous Decomposition Products: Sulphur oxides Molybdenum oxides

11. TOXICOLOGICAL INFORMATION

Inhalation Not expected to prevent a significant inhalation hazard under anticipated conditions of normal use. Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.

Dermal Repeated or prolonged exposure may have a defatting effect or cause dermatitis.

Ocular Redness, pain may occur.

Toxicological tests:

Acute toxicity

Oral LD50

Inhalation LC50

LC50 Inhalation - rat - 4 h - > 2,820 mg/m³

Remarks: Lungs, Thorax, or Respiration: Other changes.

Dermal LD50 - no data available

Other information on acute toxicity - no data available

Skin corrosion/irritation - Serious eye damage/eye irritation - no data available

Respiratory or skin sensitisation - no data available

Germ cell mutagenicity - no data available

Carcinogenicity - IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity - no data available

Teratogenicity - no data available

Specific target organ toxicity - single exposure (Globally Harmonized System) - no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) - no data available

Aspiration hazard - no data available

Potential health effects:

Inhalation Toxic if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects - no data available

Additional Information - RTECS: QA4697000

12. ECOLOGICAL INFORMATION

On Product Prevent entry to sewers and public water ways.

Ecological Effects No data available - considered non hazardous

Aquatic toxicity: Not investigated

13. DISPOSAL INFORMATION

General Dispose of in a safe manner in accordance with local/national regulations

Disposal method In accordance with local/national regulations may be taken to waste disposal site.

Disposal of used packaging Use a licensed waste disposal contractor.

14. TRANSPORT INFORMATION

Transport: Not classified as hazardous for transport.

15. REGULATORY INFORMATION

EC Classification: The material is not dangerous for transport or supply.

Risk Phrases

Irritating to eyes and respiratory system. S: 26-36

Safety Phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

16. OTHER INFORMATION

NIL

References:

* European agreement concerning the international carriage of dangerous goods by road (ADR) volumes I & II 1999

* Commission Directive 93/112/EC of 10/12/93, (O.J. No. 314 of 16/12/93 pg 38)

* Council Directive 67/548/EEC and all appropriate A.T.P'S

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Nanoparticle hBN

1. IDENTIFICATION

Material: Nanoparticle hBN
Powdered Lubricant

Supplier: Hagen Automation Ltd

Address:

Hagen Automation, Greybern House, Templars Way, Sharnbrook, MK441PY United Kingdom
Emergency Tel: 0044 7739 854 883

2. COMPOSITION

Hexagonal Boron Nitride powder
CAS NUMBER 10043-11-5 - 100%

Symptoms relating to use: Not classified as Hazardous in normal usage.

3. HAZARDS IDENTIFICATION

Emergency Overview

WHMIS Classification

Not WHMIS controlled.

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

Potential Health Effects:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

4. FIRST AID MEASURES

Inhalation - if symptoms of pulmonary involvement develop, remove from exposure and seek medical attention.

Skin contact - if irritation occurs, thoroughly wash affected area with mild soap and water and prevent further contact, contact medical help if irritation persists.

Eye contact - if irritation occurs, flush with copious amounts of Water, contact medical help if irritation persists.

Ingestion - if substantial quantities are swallowed, give person (if conscious) a large quantity of water to wash mouth out and drink, and seek medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: N/A

Flammability Limits: N/A

In case of fire, may emit toxic fumes.

No Fire Hazard, Use extinguishing agents suitable for surrounding fire.

Special Procedures: Use a self-contained breathing apparatus to prevent inhalation of Dust, Mist or fumes that may be generated during fire fighting activities.

No Unusual fire or explosion hazards.

Suitable extinguishing media: Dry Sand, Special Metal extinguishing powder.

6. ACCIDENTAL RELEASE MEASURES

Note: Very slippery, proceed with caution!

If Spilled or Released: Ventilate area of spill, clean up using methods which avoid dust generation, such as Vacuuming with appropriate filter, wet dust mop, or wet clean up.

Precautionary measures regarding persons: Remove source of ignition. Avoid formation and deposition of dust. Ensure effective ventilation.

Use the PPE (Personal Protective Equipment) as per chapter 8

(European Union: Note German Technical Regulation on Dangerous Substances No. 200/201)

7. HANDLING AND STORAGE

Maintain good housekeeping procedures to prevent accumulation of dust. Use clean-up methods which minimise dust generation.

Storage: Keep in sealed containers in a dry place. Material is Hygroscopic.

(European Union: Observe the rules contained in the VCI concept for separate/common storage.

Observe official regulations. Storage class as per VCI: 11)

7.1 Specific End Use(s):

Powdered Lubricant. Lubricant additive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Use an appropriate approved respirator to with filter type P according to DIN EN 143. If airborne dust levels exceed the TLV, appropriate requirements set forth in 29 CFR 1910.134 should be met.

Wash thoroughly after handling and before eating, smoking and end of work shift. Do not shake clothing to remove dust. Avoid inhalation, ingestion and direct skin contact

Ventilation: Use local exhaust which is adequate to limit exposure levels below TLV.

Gloves: Recommended

Eye Protection: Recommended

Respirator/mask: Recommended

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour: WHITE POWDER, NO ODOUR

PH value: N/A

Boiling Point: N/A

Melting Point: N/A
C (decomposition)
Vapor Pressure (mm HG): N/A
Vapor Density (air=1): N/A
Solubility in Water: N/A
Specific Gravity: (H₂O=1) 2.29g/cm³
Percent Volatile by Volume: N/A
Evaporation Rate: N/A
How Best Monitored: AIR SAMPLE
Non-Hazardous Ingredients
Material: Hex Boron Nitride
Percent by Weight: 100

10. STABILITY AND REACTIVITY

Stability: Stable
Conditions to avoid: Moisture
Incompatible Materials to Avoid: Strong oxidising agents
Hazardous Decomposition Products: N/A

11. TOXICOLOGICAL INFORMATION

Inhalation Not expected to prevent a significant inhalation hazard under anticipated conditions of normal use. Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.

Dermal Repeated or prolonged exposure may have a defatting effect or cause dermatitis.

Ocular Redness, pain may occur.

Toxicological tests: Not investigated

12. ECOLOGICAL INFORMATION

On Product Prevent entry to sewers and public water ways.

Ecological Effects No data available - considered non hazardous

Aquatic toxicity: Not investigated

13. DISPOSAL INFORMATION

General Dispose of in a safe manner in accordance with local/national regulations

Disposal method In accordance with local/national regulations may be taken to waste disposal site.

Disposal of used packaging Use a licensed waste disposal contractor.

14. TRANSPORT INFORMATION

Transport: Not classified as hazardous for transport.

15. REGULATORY INFORMATION

EC Classification: The material is not dangerous for transport or supply.

Risk Phrases

Irritating to eyes and respiratory system. S: 26-36

Safety Phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

16. OTHER INFORMATION

NIL

References:

* European agreement concerning the international carriage of dangerous goods by road (ADR) volumes I & II 1999

* Commission Directive 93/112/EC of 10/12/93, (O.J. No. 314 of 16/12/93 pg 38)

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Micronised WS2

1. IDENTIFICATION

Material: Micronised WS2

99.9% Tungsten Disulphide 0.6 micron aps

Powdered Lubricant

Supplier: Hagen Automation Ltd

Address:

Hagen Automation, Greybern House, Templars Way, Sharnbrook, MK441PY United Kingdom

Emergency Tel: 0044 7739 854 883

2. COMPOSITION

Refractory metal disulphide

Tungsten disulphide CAS NUMBER 12138-09-9 - 100%

Symptoms relating to use: Not classified as Hazardous in normal usage.

3. HAZARDS IDENTIFICATION

Emergency Overview

WHMIS Classification

Not WHMIS controlled.

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

Potential Health Effects:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

4. FIRST AID MEASURES

Inhalation - if symptoms of pulmonary involvement develop, remove from exposure and seek medical attention.

Skin contact - if irritation occurs, thoroughly wash affected area with mild soap and water and prevent further contact, contact medical help if irritation persists.

Eye contact - if irritation occurs, flush with copious amounts of Water, contact medical help if irritation persists.

Ingestion - if substantial quantities are swallowed, give person (if conscious) a large quantity of water to drink, induce vomiting, and seek medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: N/A

Flammability Limits: N/A

In case of fire, sulphur dioxide and tungsten trioxide are formed.

No Fire Hazard, Use extinguishing agents suitable for surrounding fire.

Special Procedures: Use a self-contained breathing apparatus to prevent inhalation of Dust, Mist or fumes that may be generated during fire frightening activities. No Unusual fire or explosion hazards.

Suitable extinguishing media: Dry Sand, Special Metal extinguishing powder.

Unsuitable extinguishing media: Water

6. ACCIDENTAL RELEASE MEASURES

Note: Very slippery, proceed with caution!

If Spilled or Released: Ventilate area of spill, clean up using methods which avoid dust generation, such as Vacuuming with appropriate filter, wet dust mop, or wet clean up.

Precautionary measures regarding persons: Remove source of ignition. Avoid formation and deposition of dust. Ensure effective ventilation.

Use the PPE (Personal Protective Equipment) as per chapter 8

(European Union: Note German Technical Regulation on Dangerous Substances No. 200/201)

7. HANDLING AND STORAGE

Maintain good housekeeping procedures to prevent accumulation of dust. Use clean-up methods which minimise dust generation.

Storage: Keep in sealed containers in a dry place.

(European Union: Observe the rules contained in the VCI concept for separate/common storage.

Observe official regulations. Storage class as per VCI: 11)

7.1 Specific End Use(s):

Powdered Lubricant. Lubricant additive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Use an appropriate approved respirator to with filter type P according to DIN EN 143. If airborne dust levels exceed the TLV, appropriate requirements set forth in 29 CFR 1910.134 should be met.

Wash thoroughly after handling and before eating, smoking and end of work shift. Do not shake clothing to remove dust. Avoid inhalation, ingestion and direct skin contact

Ventilation: Use local exhaust which is adequate to limit exposure levels below TLV.

Gloves: Recommended

Eye Protection: Recommended

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour: GRAYISH-BLACK POWDER, NO ODOR

PH value: 2 @ 20o C 100 g/l (aqueous suspension)

Boiling Point: N/A

Melting Point: 1250o

C (decomposition)

Vapor Pressure (mm HG): N/A

Vapor Density (air=1): N/A

Solubility in Water: INSOLUBLE

Specific Gravity: (H2O=1) 7.4

Percent Volatile by Volume: 0

Evaporation Rate: N/A

How Best Monitored: AIR SAMPLE

Non-Hazardous Ingredients

Material: TUNGSTEN DISULFIDE

Percent by Weight: 100

ACGIH TLV: 5MG/M3

(Limit is for insoluble compounds as W)

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to avoid: N/A

Incompatible Materials to Avoid: Contact with strong acids may generate Hydrogen Sulphide

Hazardous Decomposition Products: Oxides of Sulphur and Tungsten may be evolved at extreme temperatures.

11. TOXICOLOGICAL INFORMATION

Inhalation Not expected to prevent a significant inhalation hazard under anticipated conditions of normal use. Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.

Dermal Repeated or prolonged exposure may have a defatting effect or cause dermatitis.

Ocular Redness, pain may occur.

Toxicological tests:

Acute toxicity:

LD50 Oral, rat: > 2000 mg/Kg

LC50 inhalation, rat > 5.25 mg/l, 4 h of exposure

Irritating/Corrosive effects:

Irritation of eyes/rabbit: slightly irritant

Irritation of the skin/rabbit: non-irritant

Mutagenic effect: Salmonella typhimurium: No Indication of mutagenic effects.

12. ECOLOGICAL INFORMATION

On Product Prevent entry to sewers and public water ways.

Ecological Effects Not soluble in water, so only minimally bio-degradable

Aquatic toxicity:

Acute fish toxicity: 96 h LC50 (Brachydanio rerio): > 485 µg/l

(Maximum produceable concentration in the case of a weighed portion of 100 mg/l)

Acute toxicity for daphnia: 48 h EC50 (Daphnia magna): > 510 µg/l

(Maximum produceable concentration in the case of a weighed portion of 100 mg/l)

Toxicity for algae:

72 h EbCo (Scenedesmus subspicatus): > 330 µg/l

72 h ErCo (Scenedesmus subspicatus): > 330 µg/l

(Maximum produceable concentration in the case of a weighed portion of 100 mg/l)

Toxicity to bacteria: 3 h EC50 (activated sludge): 8972 mg/l

13. DISPOSAL INFORMATION

General Dispose of in a safe manner in accordance with local/national regulations

Disposal method In accordance with local/national regulations may be taken to waste disposal site.

Disposal of used packaging Use a licensed waste disposal contractor.

14. TRANSPORT INFORMATION

Transport: Not classified as hazardous for transport.

15. REGULATORY INFORMATION

EC Classification: The material is not dangerous for transport or supply.

Risk Phrases

None

Safety Phrases:

None

16. OTHER INFORMATION

NIL

References:

* European agreement concerning the international carriage of dangerous goods by road (ADR) volumes I & II 1999

* Commission Directive 93/112/EC of 10/12/93, (O.J. No. 314 of 16/12/93 pg 38)

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Micronised PTFE

1. IDENTIFICATION

Material: PTFE powder supplied in 10ml metal screw tin

Supplier: Hagen Automation Ltd

Address:

Hagen Automation, Greybern House, Templars Way, Sharnbrook, MK441PY United Kingdom

Emergency Tel: 0044 7739 854 883

2. COMPOSITION

Polytetrafluoroethylene CAS NUMBER 9002-84-0 -100%

Symptoms relating to use: Not classified as Hazardous in normal usage.

3. HAZARDS IDENTIFICATION

Emergency Overview

WHMIS Classification

Not WHMIS controlled.

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

Potential Health Effects:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

3.1 The primary hazard associated with PTFE is the inhalation of fumes from overheating or burning. Heating PTFE above 300 degrees centigrade may produce a fine particulate fume

3.2 Polymer fume fever, a temporary flu-like condition with fever chills, nausea, shortness of breath, chest tightness, muscle or joint ache.

3.3 The symptoms are often delayed 4 to 24 hours after exposure. These signs are generally temporary, lasting 24-48 hours and resolve without further complications.

3.4 However, some individuals with repeat episodes of polymer fume have reported persistent pulmonary effects. Exposure to decomposition products from PTFE heated above 400 degrees C may cause pulmonary inflammation, haemorrhage or oedema.

3.5 These more serious consequences of exposure may occur from extreme thermal decomposition of PTFE which can liberate fume particles, and toxic gases especially under condition of poor ventilation or confined spaces.

3.6 These decomposition products may initially produce chest tightness or pain, chills, fever, nausea, with shortness of breath, cough, wheezing and progression into pulmonary oedema.

4. FIRST AID MEASURES

If inhaled - If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact - Wash off with soap and plenty of water.

In case of eye contact - Flush eyes with water as a precaution.

If swallowed - Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIRE FIGHTING MEASURES

5.1 Suitable Extinguishing Media:

Use water spray, fog or mist, alcohol foam, or dry chemicals to extinguish.

5.2 Special Hazards Arising from the Substance or Mixture:

Exposure to high temperatures may release flammable hydrocarbons that can accumulate in confined areas and present a fire or explosion hazard. Burning may release hydrocarbons, and oxides of carbon.

5.3 Advice for Fire-Fighters:

Firefighters should wear full emergency equipment and approved positive pressure self-contained

breathing apparatus for all fires involving chemicals.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Keep unnecessary personnel away. Spilt product maybe slippery!

6.2 Environmental Precautions:

Do not flush into surface water or sanitary sewer system. Notify local authorities if product enters sewers or public waters.

6.3 Methods and Material for Containment and Cleaning up:

Stop spill at source if safe to do so. Contain spill and pump liquid into a suitable container or absorb with an inert absorbent and place in a suitable container.

6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Keep away from heat, sparks and open flame. Use with adequate ventilation. Avoid contact with eyes, skin and clothing.

Wash exposed skin thoroughly with soap and water after use. Wear appropriate personal protective equipment as specified in Section 8. Observe good industrial hygiene practices.

7.2 Conditions for Safe Storage, Including Any Incompatibilities:

Store in a cool, dry, well-ventilated area. Keep container tightly closed. Store away from oxidising agents and other incompatible materials. Keep away from open flames, sparks, and excessive heat.

Store in containers made of stainless steel, HDPE, PET, or glass.

7.3 Specific End Use(s):

Lubricant for use on plastic and other materials in contact. Lubricant additive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Direct contact with the skin should be avoided - wear gloves

Specific Eye/face Protection: Chemical safety glasses recommended.

Specific Skin Protection: Protective gloves recommended if needed to avoid prolonged contact.

Wear protective clothing as necessary to avoid skin contact.

Specific Respiratory Protection: Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95

(US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate

government standards such as NIOSH (US) or CEN (EU). For operations where exposure limits are exceeded, an approved respirator with an organic vapor cartridge and a dust/mist pre-filter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form = powder

Colour = white

Safety data

pH = no data available

Melting point/range: 321 °C (610 °F)

Boiling point = no data available

Flash point = no data available

Ignition temperature = no data available

Auto-ignition temperature = no data available

Lower explosion limit no data available

Upper explosion limit no data available

Vapour pressure no data available

Density 2.15 g/mL at 25 °C (77 °F)

Water solubility = no data available

10. STABILITY AND REACTIVITY

Hazardous decomposition products Combustion will generate smoke, carbon monoxide, carbon dioxide may produce formaldehyde under decomposition by fire.

Hazardous reactions None under normal conditions.

Hazardous properties None under normal conditions.

Materials to avoid Strong oxidizing agents.

Conditions to avoid Naked flames, fires.

11. TOXICOLOGICAL INFORMATION

Inhalation Not expected to prevent a significant inhalation hazard under anticipated conditions of normal use. Inhalation of mists or vapours at elevated temperatures may cause respiratory irritation.

Dermal Repeated or prolonged exposure may have a defatting effect or cause dermatitis.

Ocular Redness, pain may occur.

12. ECOLOGICAL INFORMATION

On Product Prevent entry to sewers and public water ways.

Ecological Effects Not soluble in water, so only minimally bio-degradable

13. DISPOSAL INFORMATION

General Dispose of in a safe manner in accordance with local/national regulations

Disposal method In accordance with local/national regulations may be taken to waste disposal site.

Disposal of used packaging Use a licensed waste disposal contractor.

14. TRANSPORT INFORMATION

Transport: Not classified as hazardous for transport.

15. REGULATORY INFORMATION

EC Classification: The material is not dangerous for transport or supply.

Risk Phrases

None

Safety Phrases:

None

16. OTHER INFORMATION

Shelf life >12 months

References:

* European agreement concerning the international carriage of dangerous goods by road (ADR) volumes I & II 1999

* Commission Directive 93/112/EC of 10/12/93, (O.J. No. 314 of 16/12/93 pg 38)

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