

Safety Data Sheet

PRODUCT CODE: **KCM003**

Effective Date: December-2023

Version: 3.0

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

Antifoam Agent: KCM003

Company/undertaking identification:

OPT Chemicals Saudi Factory and Co.
Dammam 2nd Industrial City, 6th Street, 101 Intersection,
Postal code 34334, Kingdom of Saudi Arabia.
+966 56 917 2181

Emergency phone:

2. HAZARDS IDENTIFICATION

Main environmental hazards:

Unknown

Main physical hazards:

Special precautions:

None

Physical hazard:

None

Main health hazards:

May be mildly irritating to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Polypropylene Glycol	90-100	25322-69-4

4. FIRST AID MEASURES

Eye contact:

Flush eyes with water for 5 minutes. Get medical attention if irritation occurs.

Skin contact:

Wash with water and soap.

Inhalation:

Remove to fresh air.

Swallowing:

Rinse mouth with water. Seek medical attention if irritation occurs.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Water fog, alcohol foam, CO₂, dry chemical.

Further Information:

Wear protective fire-fighting clothing and avoid breathing vapors. Use self-contained breathing apparatus in closed areas.

NFPA Rating:

Health 1; Flammability 1; Reactivity 0; Other: None

Combustion products:

See section 10.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Contain with dikes. Put in steel or plastic drum. Soak up residual on inert absorbent (sand).

See Section 8 for protective equipment information.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special precautions:

No special precautions required.

Packaging requirements:

Steel or high-density polyethylene (HDPE) container.

Ventilation:

Provide ventilation to keep airborne concentrations below exposure limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	None normally needed.
Eye protection:	Chemical splash goggles.
Hand protection:	None required
Skin protection:	Clean, body-covering clothing.
Exposure Limit Guidelines (mg/m ³):	No components have established exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Colorless
Odor:	Faint
pH value:	8-9
Boiling point:	Decomposes prior boiling point
Pour point:	Not determined
Flash point:	185°C
Method:	Pensky-Martens CC
Flammability (explosion limits in air):	Not applicable
Lower:	Not determined
Upper:	Not determined
Autoflammability (auto-ignition temperature):	Not determined
Vapor pressure:	Not determined
Relative density (specific gravity):	0.98-1.03
Bulk density (solids):	Not applicable
Solubility in water:	Insoluble
Viscosity:	980 mPa·s (20°C)
Relative vapor density (air=1):	>1
% Volatile:	<1

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Unknown
Materials to avoid:	Acids, oxidizers
Hazardous Polymerization:	Will not occur
Dust explosion hazard (solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	When heated strongly or burned, oxides of carbon and harmful organic chemical fumes are released.

11. TOXICOLOGICAL INFORMATION

Eye contact:	Mildly irritating
Skin contact:	No effect expected
Inhalation:	No effect expected
Ingestion:	No effect expected. LD50 (rats) > 15000 mg/kg.
Carcinogenicity:	Not listed by IARC, USA NTP, or USA OSHA.
Mutagenicity:	Not known to cause heritable genetic damage.
Teratogenicity:	Not known to cause birth defects.
Target organs which may be affected:	None known
Sensitization:	Not known to cause allergic reaction.

12. ECOLOGICAL INFORMATION

Information on product as a whole:

Main environmental hazards:	Not available
Degradability:	Not biodegradable. BOD = 0.15 p/p; COD = 1.94 p/p.
Other:	Not available
Marine Toxicities:	
Species	Result
Skeletonema costatum	EC50(48h) = 1.0-3.2% of saturated solution in sea water.
Abra alba	EC50(5d) = 59 mg/l.
Acartia Tonsa	LC50(48h) = 0.25% of saturated solution in seawater.

13. DISPOSAL CONSIDERATIONS

Product:	Dispose of by incineration (preferred) or other acceptable method in accordance with local regulations.
Container:	Sell drum to an approved drum reconditioner or triple rinse, crush, and ship to sanitary landfill unless prohibited by local regulations.

14. TRANSPORT INFORMATION

UN Number:	Not regulated
IMO Description:	
Class:	
Package Group:	No additional information.
Label:	
EMS:	
MFAG:	
IATA Description:	No additional information.
Class:	
Sub Risk:	
Package Group:	
Label:	
ADR Description:	No additional information.
ADR class/item:	
ADR Danger ID:	

15. REGULATORY INFORMATION

Symbols:	
Risks:	-
Safety advice:	Exercise reasonable care and cleanliness.
Notification/restrictions status	
EUROPEAN UNION (EU):	All components of this material are on the EINECS inventory, or the components are exempt from inventory reporting.
NORWAY:	Not determined.
USA:	All components of this material are on the USA TSCA inventory, or the components are exempt from inventory reporting

16. OTHER INFORMATION

REGULATORY INFORMATION

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. We make no representation as to completeness or accuracy. In no event we shall be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

*** END of SDS***

Safety Data Sheet

PRODUCT CODE: **KCM012S**

Effective Date: December-2023

Version: 3.0

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

Dispersant: KCM012S

Company/undertaking identification:

OPT CHEMICALS SAUDI FACTORY AND CO.
Damman 2nd Industrial City, 6th Street, 101 Intersection,
Postal code 34334, Kingdom of Saudi Arabia.
+966 13 830 3821 (KSA)

Emergency phone:

2. HAZARDS IDENTIFICATION

Main environmental hazards: Not know.
Main physical hazards: None
Special precautions: None
Main health hazards: Irritate eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Acetone Formaldehyde Resin	80-100	488-69-7

4. FIRST AID MEASURES

Eye contact: Flush your eyes with water for 5 minutes. Get medical attention if irritation occurs.
Skin contact: Take off contaminated clothes, wash it with soap water. If feel any uncomfortable, please seek medical help.
Inhalation: Remove to fresh air.
Swallowing: Don't try to vomit. Drink some water or milk and seek medical help as soon as possible.

5. FIRE-FIGHTING MEASURES

Extinguishing media:
Small fire: Use dry chemical powder.
Large fire: Use water spray or foam to extinguish fire; don't use water gauge to distinguish fire.
Further Information: None
Explosion hazard: Not applicable.
NFPA Rating: Health 0; Flammability 0; Reactivity 0; Other: None.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:
Small spill: Avoid pollute water or discharge them into river; Wash the operation situation and recycle the spillage into the container.
Large spill: Disperse the irrelevant staff; collect the spillage into the container with protection glasses and gloves; avoid product dust when we are collecting those spillages; avoid the polluted thing go into the river.

7. HANDLING AND STORAGE

Special precautions: Keep container dry and place it in a situation with well ventilation; stay away with the igneous source and keep the container closed.

Packaging requirements:	Bags with resist wet layer.
Ventilation:	Provide ventilation to keep airborne concentrations below exposure limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	Not need under normal condition.
Eye protection:	Chemical splash goggles.
Hand protection:	Wear resist permeate rubber gloves.
Skin protection:	Clean, body-covering clothing.
Exposure limit guidelines(mg/m ³):	No components have established exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Powder
Color:	Brown
Odor:	Mild
Vapor pressure:	Not applicable.
pH value:	7.5-9.0 (1% solution)
Relative density (specific gravity):	1.10-1.30
Flash temperature:	Not know.
Boiling point:	Not determined
Flash point:	Not combustible
Combustible (the explosion limit in the air)	
Inferior limit:	Not applicable
Superior limit:	Not applicable
Viscosity:	Not applicable
Melting point:	Not applicable

10. STABILITY AND REACTIVITY

Stability:	Stable under normal operation condition.
Conditions to avoid:	Unknown
Materials to avoid:	Oxidizers
Hazardous Polymerization:	Not appear
Dust explosion hazard(solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	None

11. TOXICOLOGICAL INFORMATION

Enter trace:	Eyes, swallow and inhalation.
Emergic poison data:	
Toxic for animals:	1000mg/kg
Eye contact:	May cause mechanical irritation to eyes.
Skin contact:	Not influenced
Inhalation:	Not influenced
Ingestion:	No effect expected
Note:	None
Carcinogenicity:	No influences on people and animals.
Mutagenicity:	No influences on people and animals.
Teratogenicity:	Not known to cause birth defects.
Sensitization:	Not known to cause allergic reaction.

12. ECOLOGICAL INFORMATION

Ecosystem toxic:	
Ecological decompose ability:	Unknown
Special comment of the ecological decomposition:	Unknown

13. DISPOSAL CONSIDERATIONS

Disposal information:	Dispose of by sanitary land filling or other acceptable method in accordance with local regulations.
Disposal source:	Unknown

14. TRANSPORT INFORMATION

UN Number:	None
IMO Description:	No regulated.
Class:	
Package Group:	
Label:	
EMS:	
MFAG:	
IATA Description:	Not regulated.
Class:	
Sub Risk:	
Package Group:	
Label:	
ADR Description:	Not regulated.
ADR class/item:	
ADR Danger ID:	
ADR Label:	

15. REGULATORY INFORMATION

Symbols:	None
Risks:	None
Safety advice:	No special precaution required.
Notification/restrictions status:	
EUROPEAN UNION (EU):	All components of this material are on the EINECS inventory, or the components are exempt from inventory reporting.
NORWAY:	Not determined.
USA:	All components of this material are on the USA TSCA inventory, or the components are exempt from inventory reporting.

16. OTHER INFORMATION

REGULATORY INFORMATION

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*** END of SDS***

Safety Data Sheet

PRODUCT CODE: **KCM038**

Effective Date: December-2023

Version: 3.0

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

TOC Additive: KCM038

Company/undertaking identification:

OPT Chemicals Saudi Factory and Co.
Dammam 2nd Industrial City, 6th Street, 101 Intersection,
Postal code 34334, Kingdom of Saudi Arabia.
+966 56 917 2181

Emergency phone:

2. HAZARDS IDENTIFICATION

Main environmental hazards:

None known

Main physical hazards:

Special precautions:

None

Physical hazard:

Corrosive to metals

Main health hazards:

Causes severe eye irritation. Causes irritation if swallowed.
Causes severe skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Inorganic Salt	30-60	
Sulfuric Acid	3-10	7664-93-9
Water	30-67	7732-18-5

4. FIRST AID MEASURES

Eye contact:

Immediately flush eyes with water for 15 minutes while holding eyelids open. Seek medical attention

Skin contact:

Immediately remove contaminated clothes and shoes. Wash with soap and water for 15 minutes. Seek medical attention

Inhalation:

Remove to fresh air.

Swallowing:

DO NOT induce vomiting. Drink large quantities of milk (preferred) or water and give milk of magnesia. Seek medical attention at once

Notes:

None

5. FIRE-FIGHTING MEASURES

Extinguishing media:

None needed

Further information:

May release hydrogen gas (explosive) on contact with metals

NFPA Rating:

Health 2; Flammability 0; Reactivity 0; Other: None

Combustion products:

see Section 10

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Contains dikes. Neutralize with soda ash or lime. Put in plastic drum

See Section 8 for protective equipment information.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special precautions:

No special precautions required

Packaging requirements:	High density polyethylene (HDPE) drum or can
Ventilation:	Provide ventilation to keep airborne concentrations below exposure limits

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	None normally needed
Eye protection:	Chemical splash goggles
Hand protection:	Impervious gloves
Skin protection:	Chemical resistant apron
Exposure limit guidelines (mg/m ³):	Components having no established limits are not listed. (NE: Not established, ND: Not determined)

These numbers may be referred to as OEL, MAC, MAK, MEL, OES, REL, PEL, or TLV.

TWA is the 8-hour time weighted average. STEL is the short-term exposure limit.

"C" indicates the value is a maximum concentration (ceiling).

	INORGANIC SALT			SULFURIC ACID		
	TWA	STEL	ANM	TWA	STEL	ANM
AUSTRALIA	NE	NE		1	NE	
BELGIUM	NE	NE		1	3	
DENMARK	NE	NE		1	NE	
EU	NE	NE		NE	NE	
FRANCE	NE	NE		1	3	
GERMANY	NE	NE		1	1	
HOLLAND	2	NE		1	NE	
NORWAY	NE	NE		1	NE	
UNITED KINGDOM	NE	NE		1	NE	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Light green
Odor:	None
pH value:	1-2
Boiling point:	Not determined
Pour point:	Not determined
Flash point:	Not combustible
Flammability (explosion limits in air):	
Lower:	Not applicable
Upper:	Not applicable
Auto-flammability (auto-ignition temperature):	Not applicable
Vapor pressure:	Same as water
Relative density (specific gravity):	1.20-1.30
Bulk Density (solids):	Not applicable
Solubility in water:	Soluble (20°C)
Viscosity:	10 mPa·s (20°C)
Relative vapor density (air=1):	Same as water
Volatile%:	60

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Not determined
Materials to avoid:	Metals Bases

Hazardous polymerization:	Will not occur
Dust explosion hazard (solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	Sulfur oxides

11. TOXICOLOGICAL INFORMATION

Eye contact:	Severe irritant. Causes pain and redness. Prolonged or repeated contact may cause mild burn
Skin contact:	Severe irritant; causes pain, redness, dermatitis or mild burn
Inhalation:	No effect expected
Ingestion:	Irritation may cause pain or discomfort to mouth, throat and stomach. LD50 (rats) > 5000 mg/kg
Carcinogenicity:	Not listed by IARC, USA NTP, or USA OSHA
Mutagenicity:	Not known to cause heritable genetic damage
Teratogenicity:	Not known to cause birth defects
Target organs which may be affected:	Bones, Reproductive
Sensitization:	Not known to cause allergic reaction
Other:	None

12. ECOLOGICAL INFORMATION

Information on product as a whole:	
Main environmental hazards:	None known
Degradability:	Not applicable
Other:	None known

13. DISPOSAL CONSIDERATIONS

Product:	Dispose of by solidification and hazardous waste landfilling (preferred) or injection in a disposal well or other acceptable method in accordance with local regulations.
Container:	Sell drum to an approved drum reconditioner or triple rinse, crush, and ship to sanitary landfill unless prohibited by local regulations.

14. TRANSPORT INFORMATION

UN Number:	UN3264
IMO Description:	Corrosive liquid, acidic, inorganic, n.o.s. (contains sulfuric acid)
Class:	8
Package Group:	III
Label:	Corrosive 8
EMS:	8-15
MFAG:	760
IATA Description:	Corrosive liquid, acidic, inorganic, n.o.s. (contains sulfuric acid)
Class:	8
Sub Risk:	
Package Group:	III
Label:	Corrosive 8
ADR Description:	Corrosive liquid, acidic, inorganic, n.o.s. (contains sulfuric acid)
ADR class/item:	8,17c

ADR Danger ID:	80
TREM Card:	80G20
ADR Label:	Corrosive 8

15. REGULATORY INFORMATION

Symbols:



Irritant

Risks:

R36/38 Irritating to eyes and skin

Safety advice:

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

Notification/restrictions status:

EUROPEAN UNION (EU):

All components of this material are on the EINECS inventory, or the components are exempt from inventory reporting

NORWAY:

Not determined

USA:

All components of this material are on the USA TSCA inventory, or the components are exempt from inventory reporting

16. OTHER INFORMATION

DISCLAIMER:

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. We make no representation as to completeness or accuracy. In no event we shall be responsible for damage of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

*** END of SDS***

Safety Data Sheet

PRODUCT CODE: **KCM039**

Effective Date: December-2023

Version: 3.0

1. PRODUCT AND COMPANY IDENTIFICATION

Identification of the substance or preparation:

TOC Fluid Loss Control Agent: KCM039

Company/undertaking identification:

OPT Chemicals Saudi Factory and Co.
Dammam 2nd Industrial City, 6th Street, 101 Intersection,
Postal code 34334, Kingdom of Saudi Arabia.
+966 56 917 2181

Emergency phone:

2. HAZARDS IDENTIFICATION

Main environmental hazards:

May cause eye, skin, and respiratory discomfort.

Main environmental hazards:

None known.

Main physical hazards:

Special precautions:

None

Physical hazard:

Dust

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Aliphatic Amide Polymer:	100%	9003-05-8

4. FIRST AID MEASURES

Eye contact:

Immediately flush your eyes with water for 15 minutes while holding eyelids open. Seek medical attention at once.

Skin contact:

Immediately remove contaminated clothes and shoes. Wash with soap and water for 15 minutes. Seek medical attention.

Inhalation:

Generally, no adverse reaction appears if a minor inhalation. If excessive inhalation, please move to a well-ventilated place. If serious, please get medical attention.

Swallowing:

Get medical attention immediately. If vomit, keep head lower than hip.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

All media

Further information:

None known

Characteristics:

The product is not flammable or explosive.

Flash point (C):

Not applicable

Flammability limits in Air – Low limit (%):

Not applicable

Flammability limits in Air – high limit (%):

Not applicable

NFPA Rating:

Health 1; Flammability 2; Reactivity 0; Other: None.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Collect splashing and leaking materials with containers. Use sand or other inert materials to absorb leaking and splashing objects. In a safe condition, take measures to isolate the leaking and plashing containers to prevent leakage from continuing.

Waste disposal:

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special precautions	No special precautions required.
Packaging requirements:	Packing bags should be handled in accordance with national environmental regulations. The recycle bin should be allowed to know the raw material of bags when they are handed to recycle bin. If there are some residues in bags, the safe and environmental logo on the bag should be retained completely.
Ventilation:	No special requirements.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	None normally needed.
Eye protection:	Chemical splash goggles.
Hand protection:	Impervious gloves made of rubber.
Skin protection:	Clean, body-covering clothing.
Exposure limit guidelines (mg/m ³):	No components have established exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Powder
Color:	White
Odor:	Slight
pH value:	None
Boiling point:	Not available
Pour point:	Not available
Flash point:	Not available
Flammability (explosion limits in air):	The product is not flammable or explosive.
Lower:	Not applicable
Upper:	Not applicable
Auto flammability (auto-ignition temperature):	Not applicable
Vapor pressure:	Not determined
Relative density (specific gravity):	1.37-1.57
Solubility in water:	Soluble 20°C
Viscosity:	Not available
Relative vapor density (air=1):	N/A.

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Not determined
Materials to avoid:	Acids, aluminum
Hazardous polymerization:	Will not occur
Dust explosion hazard (solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	None

11. TOXICOLOGICAL INFORMATION

Typical contact	Eye contact, inhalation, skin contact, swallowing.
Eye contact:	Irritant. It may cause discomfort, redness, or pain.
Skin contact:	Prolonged or repeated contact may cause mild irritation.
Inhalation:	Prolonged or repeated inhalation may cause mild irritation.
Mutagenicity:	Not known to cause heritable genetic damage.
Teratogenicity:	Not known to cause birth defects.
Target organs which may be affected:	None known

Sensitization: Not known to cause allergic reaction.
Other: None

12. ECOLOGICAL INFORMATION

Information on product as a whole:

Main environmental hazards: None known
Degradability: Not applicable
Other: None known

13. DISPOSAL CONSIDERATIONS

Product: Deal with waste according to the national or local requirements on environmental protection. The waste may be received and treated by some waste landfill station.

14. TRANSPORT INFORMATION

UN Number: None
IMO Description: Not regulated
Class:
Package Group:
Label:
EMS:
MFAG:
IATA Description: Not regulated
Class:
Sub Risk:
Package Group:
Label:
ADR Description: Not regulated
ADR class/item:
ADR Danger ID:
TREM Card:
ADR Label:

15. REGULATORY INFORMATION

Safety advice: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

16. OTHER INFORMATION

REGULATORY INFORMATION

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*** END of SDS***

Safety Data Sheet

PRODUCT CODE: **KCM040**

Effective Date: December-2023

Version: 3.0

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

TOC Retarder: KCM040

Company/undertaking identification:

OPT Chemicals Saudi Factory and Co.
Dammam 2nd Industrial City, 6th Street, 101 Intersection,
Postal code 34334, Kingdom of Saudi Arabia.
+966 56 917 2181

Emergency phone:

2. HAZARDS IDENTIFICATION

Main environmental hazards:

None determined

Main physical hazards:

Special precautions:

None

Physical hazard:

Dust

Main health hazards:

May be mildly irritating to eyes. May be mildly irritating if swallowed. May be mildly irritating if inhaled.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Metal Oxide	60 - 100	-

4. FIRST AID MEASURES

Eye contact:

Flush your eyes with water for 5 minutes. Get medical attention if irritation occurs.

Skin contact:

Remove contaminated clothes and shoes. Wash thoroughly with soap and water. Seek medical attention if irritation occurs.

Inhalation:

Remove to fresh air.

Swallowing:

If several grams are swallowed, give 2 glasses of milk (preferred) or water and seek medical advice.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

None needed

Further information:

None known

NFPA Rating:

Health 1; Flammability 0; Reactivity 0; Other: None

Combustion products:

see Section 10

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Scoop into containers. Flush residual with plenty of water.

See Section 8 for protective equipment information.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special precautions:

No special precautions required.

Packaging requirements:

Paper bag (minimum 3 ply), or other industrial container designed for powders and granulated materials.

Ventilation:

Provide ventilation to keep airborne concentrations below exposure limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	None normally needed.
Eye protection:	Chemical splash goggles.
Hand protection:	Impervious gloves made of rubber.
Skin protection:	Clean, body-covering clothing.
Exposure limit guidelines (mg/m ³):	Components having no established limits are not listed. (NE: Not established, ND: Not determined)

These numbers may be referred to as OEL, MAC, MAK, MEL, OES, REL, PEL, or TLV.

TWA is the 8-hour time weighted average. STEL is the short-term exposure limit.

"C" indicates the value is a maximum concentration (ceiling).

	ZINC OXIDE		
	TWA	STEL	ANM
AUSTRALIA	10		NE
BELGIUM	5		10
DENMARK	4		NE
EU	NE		NE
FRANCE	10		NE
GERMANY	5		NE
HOLLAND	5		NE
NORWAY	5		NE
UNITED KINGDOM	5		10

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Powder
Color:	White to yellow
Odor:	None
pH value:	Not applicable
Boiling point:	Not applicable
Pour point:	1975°C
Flash point:	Not combustible
Flammability (explosion limits in air):	
Lower:	Not applicable
Upper:	Not applicable
Auto-flammability (auto-ignition temperature):	Not applicable
Vapor pressure:	Not determined
Relative density (specific gravity):	5.95-6.15
Bulk Density (solids):	300-500 kg/m ³
Solubility in water:	Insoluble
Viscosity:	Not available
Relative vapor density (air=1):	Not determined
Volatile%:	<2

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Not determined
Materials to avoid:	Acids
Hazardous polymerization:	Will not occur
Dust explosion hazard (solids):	No
Special hazards:	None

Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION

Eye contact: Mildly irritating
Skin contact: Mildly irritating
Inhalation: Mildly irritating
Ingestion: Mildly irritating
Carcinogenicity: Not listed by IARC, USA NTP, or USA OSHA
Mutagenicity: Not known to cause heritable genetic damage
Teratogenicity: Not known to cause birth defects
Target organs which may be affected: None known
Sensitization: Not known to cause allergic reaction
Other: None

12. ECOLOGICAL INFORMATION

Information on product as a whole:
Main environmental hazards: None determined
Degradability: Not applicable
Other: None known

13. DISPOSAL CONSIDERATIONS

Product: Dispose of by landfilling or other acceptable method in accordance with local regulations.
Container: Send empty bags to sanitary landfill. Render other types of containers unusable by puncturing or crushing and sanitary landfill unless prohibited by local regulations.

14. TRANSPORT INFORMATION

UN Number: None
IMO Description: Not regulated
Class:
Package Group:
Label:
EMS:
MFAG:
IATA Description: Not regulated
Class:
Sub Risk:
Package Group:
Label:
ADR Description: Not regulated
ADR class/item:
ADR Danger ID:
TREM Card:
ADR Label:

15. REGULATORY INFORMATION

Symbols:
Risks: Evaluated as not required to be labelled

Safety advice:

Exercise reasonable care and cleanliness

Notification/restrictions status:

EUROPEAN UNION (EU):

All components of this material are on the EINECS inventory, or the components are exempt from inventory reporting

NORWAY:

Not determined

USA:

All components of this material are on the USA TSCA inventory, or the components are exempt from inventory reporting

16. OTHER INFORMATION

DISCLAIMER:

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. We make no representation as to completeness or accuracy. In no event we shall be responsible for damage of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

*** END of SDS***