

Safety Data Sheet

PRODUCT CODE: **KHF002L**

Effective Date: December-2023

Version: 3.0

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

Identification of the substance or preparation:

Clay Stabilizer: KHF002L

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

Classification of the substance or mixture:

GHS-US Classification:

Acute Toxicity. Category 3 (Oral): H301

Eye Irritation. Category 2A: H319

GHS-US Labeling:

Hazard Pictograms:



Signal Word: Danger

Hazard Statements:

H301 - Toxic if swallowed.

H319 - Causes serious eye irritation.

Precautionary Statements:

P264 - Wash exposed skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear eye protection, protective gloves.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 - Specific treatment (see reference to supplemental first aid instruction on this label) if immediate administration of antidote is required. P330 - If swallowed, rinse mouth.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents/container to comply with local, state and federal regulation.

Other Hazards: Water Slick

Unknown acute toxicity (GHS US):

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Organic Ammonium Chloride	45-55	
Water	45-55	7732-18-5

4. FIRST AID MEASURES

Eye contact:

Immediately flush eyes with water for 30 minutes while holding eyelids open. Seek medical attention at once.

Skin contact:

Immediately remove contaminated clothes and shoes. Wash

Inhalation:	with soap and water for 15 minutes Seek medical attention. Remove to fresh air. Seek medical attention if irritation persists or you feel unwell.
Swallowing:	If several grams are swallowed, immediate medical is required. If delayed, consider inducing vomiting with ipecac or other means. After vomiting give 2 glasses milk or water.
Note:	None

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Water Fog, Alcohol Foam, CO ₂ , Dry Chemical.
Further information:	Wear protective firefighting clothing and avoid breathing vapors. Use self-contained breathing apparatus in closed areas. Material is an oxidizer.
NFPA Rating:	Health 3 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:	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:	Chemical resistant apron.
Exposure limit guidelines (mg/m ³):	No components have established exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Colorless
Odor:	No
pH value:	7.0-8.0
Boiling point:	Not determined
Pour point:	Not determined
Flash point:	> 93°C
Method:	Pensky-Martens cc
Flammability (explosion limits in air):	
Lower:	Not determined
Upper:	Not determined
Auto-flammability (auto-ignition temperature):	Not determined
Vapor pressure:	Not determined
Relative density (specific gravity):	1.08-1.13
Bulk density (solids):	Not applicable

Solubility in water:	Soluble
Viscosity:	6 mPa•s (20°C)
Relative vapor density (air=1):	Not determined
% Volatile:	50

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Unknown
Materials to avoid:	Oxidizers
Hazardous polymerization:	Will not occur.
Dust explosion hazard (solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	If heated strongly or burned, oxides of carbon and nitrogen, ammonia, chlorine oxides, hydrogen chloride and organic fumes are released.

11. TOXICOLOGICAL INFORMATION

Eye contact:	Sever Irritant. Cause pain and redness. Prolonged or repeated contact may cause mild burn.
Skin contact:	Irritant; may cause pain, redness, dermatitis.
Inhalation:	Mildly irritating.
Ingestion:	Mildly Irritating; Toxic; can cause illness or death. LD50 (rats) = 220mg/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:	May cause allergic reaction upon repeated skin exposure.
Other:	None

12. ECOLOGICAL INFORMATION

Information on product as a whole:	
Main environmental hazards:	
Degradability:	None known
Other:	Toxic to microorganisms
Marine Toxicities:	None known

13. DISPOSAL CONSIDERATIONS

Product:	Dispose of by incineration (preferred) or chemical deactivation 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:	UN 2810
IMO Description:	Toxic liquid, organic n.o.s. (contains tetramethylammonium chloride).
Class:	6.1
Package Group:	III
Label:	Toxic 6

EMS:	6.1-02
MFAG:	
LATA Description:	Toxic liquid, organic n.o.s. (contains tetramethylammonium chloride).
Class:	6.1
Sub Risk:	
Package Group:	III
Label:	Toxic 6
ADR Description:	Toxic liquid, organic n.o.s. (contains tetramethylammonium chloride).
ADR class/item:	5.1, 18c
ADR Danger ID:	60
ADR Label:	Toxic 6

15. REGULATORY INFORMATION

Symbols:



Signal Word:

Warning

Risks:

Toxic if swallowed.

Safety advice:

S45 In case of accident or if you feel unwell. seek medical advice immediately (show the label where possible) 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 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: **KHF007S**

Effective Date: December-2023

Version: 3.0

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

Identification of the substance or preparation:

Flowback Additive: KHF007S

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

Classification of the substance or mixture:

GHS-US Classification:

Skin irritation, Category 3 H315

Eye irritation, Category 2B H320

Specific target organ toxicity, single exposure; H335

Respiratory tract irritation:

Specific target organ toxicity, single exposure; H336

Narcotic effects, Category 3:

GHS-US Labeling:

Hazard Pictograms:



Signal Word:

Warning

Hazard Statements:

H315 – Causes skin irritation.

H3320 – Causes eye irritation.

H335 – May cause respiratory irritation.

H336 – May cause drowsiness or dizziness.

Precautionary Statements:

P261 – Avoid breathing dust.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear eye protection, protective clothing, and protective gloves.

P302+P352 – If on skin, wash with plenty of soap
And water.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

P321 – Specific treatment (see reference to supplemental first aid instruction on this label).

P332+P313 – If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P403+P233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up

Other Hazards:

Unknown acute toxicity (GHS US):

P501 – Dispose of contents/container according to local, regional, national, and international regulations.

No additional information available

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Petroleum Sulfonate Sodium Sulfonate	30-40	
Quaternary Ammonium Salt	20-30	3529-04-2
Polyether Emulsifier	10-20	9003-11-6
Water	20-30	7732-18-5

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:

Do not induce vomiting. Give 2 glasses of milk or rinse mouth with water. Seek medical attention if irritation occurs.

Notes:

None

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Water fog, alcohol foam, CO₂, dry chemical.

Further Information:

Vapor may travel along the ground. Avoid breathing.

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:

Away from heat, sparks or flames. Keep in well-ventilated areas to avoid direct sunlight.

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:

Normally not required.

Eye protection:

Chemical splash goggles.

Hand protection:

Impervious gloves made of rubber.

Skin protection:

Clean, body-covering clothing. Cotton gloves.

Exposure limit guidelines (mg/m³):

No components have established exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:

Liquid

Color:

Light yellow

Odor:

Faint

pH value:	7.0-9.5
Boiling point:	80°C
Pour point:	-10°C
Flash point:	Not determined
Method:	Pensky-Martens CC
Flammability (explosion limits in air):	
Lower:	Not determined
Upper:	Not determined
Auto flammability (auto-ignition temperature):	Not determined
Vapor pressure:	Not determined
Relative density (specific gravity):	1.00-1.05
Bulk density (solids):	Not applicable
Solubility in water:	Soluble

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Unknown
Materials to avoid:	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:	May irritate, cause redness, pain or discomfort.
Skin contact:	Irritating, cause redness, pain and dermatitis.
Inhalation:	Mildly irritating
Ingestion:	Harmful if swallow large amount.
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:	May cause dizziness, nausea or headache.

12. ECOLOGICAL INFORMATION

Information on product as a whole:	
Main environmental hazards:	Not available
Degradability:	Partially biodegradable
Other:	None known

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

UN Number:	None
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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:	

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

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: **KHF043**

Effective Date: December-2023

Version: 1.0

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

Identification of the substance or preparation:

Breaker: KHF043

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:

None

Main health hazards:

Causes eye and skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS#
Peroxide	30-35	Private
Water	65-70	7732-18-5

4. FIRST AID MEASURES

Eye contact:

Immediately flush eyes with plenty of water for 30 minutes while holding eyelids open. Seek medical attention immediately.

Skin contact:

Wash with water and soap.

Inhalation:

Remove to fresh air.

Swallowing:

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

Notes:

None

5. FIRE-FIGHTING MEASURES

Extinguishing media:

None needed

Further information:

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

NFPA Rating:

Health 1 Flammability 0 Reactivity 0 Other: None

Combustion products:

See Section 10.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Contain with dikes. 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:

High density polyethylene (HDPE) drum or can.

Ventilation:

No special requirements.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	Required when vapors/aerosols are generated.
Eye protection:	Tightly fitting safety goggles.
Hand protection:	Impervious gloves made of rubber.
Skin protection:	Chemical resistant apron.
Exposure limit guidelines (mg/m ³):	Do not empty into drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Colorless
Odor:	Slight, stinging
pH value:	0-3
Boiling point (air=1):	107°C
Melting point/freezing point:	-25.7°C
Flash point:	Not combustible
Flammability (explosion limits in air):	
Lower:	Not applicable
Upper:	Not applicable
Vapor pressure:	Not determined
Relative density (specific gravity):	1.10-1.15
Bulk density (solids):	Not applicable
Solubility in water:	Miscible
Viscosity:	Not determined
Relative vapor density (air=1):	Not determined
% Volatile:	Not determined

10. STABILITY AND REACTIVITY

Symbol:



Stability:	Heat-sensitive, Sensitivity to light Contains some stabilizer(s).
Conditions to avoid:	Heating
Materials to avoid:	Acids, bases, salts, metal oxides, nonmetallic oxides, organic compounds, etc.
Hazardous polymerization:	Will not occur
Dust explosion hazard (solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	Nature of decomposition products not known. Not combustible

11. TOXICOLOGICAL INFORMATION

Eye contact:	Irritant. May cause conjunctivitis.
Skin contact:	Irritant. May cause burns.
Inhalation:	Due to physical form, this material is not inhalable.
Ingestion:	No effect expected.
Carcinogenicity:	Not known
Mutagenicity:	Not known to cause heritable genetic damage.
Teratogenicity:	Not known to cause birth defects.
Target organs what might be affected:	Not known

Sensitization:	Not known to cause allergic reaction.
Other:	May affect bones and joints.

12. ECOLOGICAL INFORMATION

Information on product as a whole:

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

13. DISPOSAL CONSIDERATIONS

Product:	Dispose of by sanitary land-filling or other acceptable method in accordance with local regulations.
Container:	Triple rinse, crush and ship to sanitary landfill unless prohibited by local regulations.

14. TRANSPORT INFORMATION

UN Number:	None
IMO Description:	Not regulated
Class:	8
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

Notification/restrictions status:	Law on the Prevention and Control of Occupational Diseases
EUROPEAN UNION (EU):	Not determined
NORWAY:	Not determined
USA:	Not determined

16. OTHER INFORMATION

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*** END OF SDS***

Safety Data Sheet

PRODUCT CODE: **KHF048**

Effective Date: December-2023

Version: 1.0

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

Identification of the substance or preparation:

Crosslinker: KHF048

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 health hazards:

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

Main environmental hazards:

None known

Main physical hazards:

Special precautions:

None

Physical hazard:

Flammable liquid

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS #
Organo-Zirconium	20-40	Proprietary
Water	60-80	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:

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

Inhalation:

Remove to fresh air. Seek medical attention if irritation persists or you feel unwell.

Swallowing:

If several grams are swallowed, immediate medical is required. If delayed, consider inducing vomiting with ipecac or other means. After vomiting give milk or water.

Notes:

None

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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 2 Flammability 3 Reactivity 0 Other: None

Combustion products:

See Section 10.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Contain with dikes. Use explosion proof equipment to recover. Remove all sources of ignition. Soak up residual on inert absorbent (sand). Put in plastic drum approved for flammables.

See Section 8 for protective equipment information.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special precautions:	Keep away from heat, sparks, and flame. Keep container closed when not in use. Use with adequate ventilation. Do not cut or weld on container.
Packaging requirements:	Steel or high-density polyethylene (HDPE) container approved for flammables.
Ventilation:	Provide ventilation to keep airborne concentrations below exposure limit.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:	Use respirator with organic vapor/acid gas protection (E, yellow).
Eye protection:	Chemical splash goggles.
Hand protection:	Impervious gloves made of rubber.
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).

	2,2'-IMINODIETHANOL			METHANOL			PROPAN-2-OL		
	<u>TWA</u>	<u>STEL</u>	<u>ANM</u>	<u>TWA</u>	<u>STEL</u>	<u>ANM</u>	<u>TWA</u>	<u>STEL</u>	<u>ANM</u>
AUSTRALIA	15	NE		260	310		980	1225	
BELGIUM	13	NE		262 H	328		985	1230	
DENMARK	15	NE		260 H	NE		490	NE	
EU	NE	NE		260	NE		NE	NE	
FRANCE	15	NE		260	1300		NE	980	
GERMANY	NE	NE		260 H	NE		980	NE	
HOLLAND	15	NE		260 H	NE		980 H	NE	
NORWAY	15	NE		130 H	NE		245	NE	
UNITED KINGDOM	15	NE		260 H	310		980 H	1225	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Yellow
pH value:	5.5-6.5
Boiling point:	Not determined
Pour point:	Approximately -20°C
Flash point:	32°C
Method:	Pensky-Martens CC
Flammability (explosion limits in air):	
Lower:	Not determined
Upper:	Not determined
Auto flammability (auto-ignition temperature):	Not determined
Vapor pressure:	Not determined
Relative density (specific gravity):	1.15-1.20
Bulk density (solids):	Not applicable
Solubility in water:	Soluble 20°C

Viscosity:	Not determined
Relative vapor density (air=1):	Not determined
% Volatile:	Not determined

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	Not determined
Materials to avoid:	Oxidizers Aluminum
Hazardous polymerization:	Will not occur.
Dust explosion hazard (solids):	No
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:	Mildly irritating
Inhalation:	Harmful if inhaled; may cause illness.
Ingestion:	Harmful if swallowed; large amounts may cause illness.
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 what might be affected:	None known
Sensitization:	Not known to cause allergic reaction.
Other:	May cause blindness. Methanol should be treated as a cumulative poison over time intervals of a few days.

12. ECOLOGICAL INFORMATION

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

Bioaccumulation and Biodegradation of the components:

Substance	Log Pow	Biodegradation
METHANOL	-0.8	98% (50d) - Literature
PROPAN-2-OL	-0.16/0.28	72% (20d) - Literature

13. DISPOSAL CONSIDERATIONS

Product:	Dispose of by incineration (preferred) or other acceptable method in accordance with local regulations.
Container:	Sell to approved drum reconditioner or render container unusable by puncturing or crushing. Send to sanitary landfill unless prohibited by local regulations.

14. TRANSPORT INFORMATION

UN Number:	UN 1993
IMO Description:	Flammable liquid, N.O.S. (contains methanol)
Class:	3.3
Package Group:	III
Label:	Flammable Liquid 3
EMS:	

MFAG:	
IATA Description:	Flammable liquid, N.O.S. (contains methanol)
Class:	3
Sub Risk:	
Package Group:	III
Label:	Flammable Liquid 3
ADR Description:	Flammable liquid, N.O.S. (contains methanol)
ADR class/item:	3,31c
ADR Danger ID:	30
ADR Label:	Flammable Liquid 3
TREM Card:	30G35

15. REGULATORY INFORMATION

Symbols:



Irritant

Risks:

R10 Flammable.

R20/22 Harmful by inhalation and if swallowed.

Safety advice:

S16 Keep away from sources of ignition - No smoking.

S46 If swallowed, seek medical advice immediately and show this container or label.

Notification/restrictions status:

EUROPEAN UNION (EU):

Not determined

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

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: **KHF071**

Effective Date: December-2023

Version: 1.0

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

Identification of the substance or preparation:

Gelling Agent: KHF071

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 health hazards:

May causes skin irritation.

Main environmental hazards:

None known

Main physical hazards

Special precautions:

None

Physical hazard:

Not flammable but will burn.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance	Conc. [wt.%]	CAS #
PAM	40-60	9003-05-8
Mineral oil	40-60	8042-47-5

4. FIRST AID MEASURES

Eye contact:

Flush eyes with water. If persistent irritation occurs, obtain medical attention.

Skin contact:

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

Swallowing:

DO NOT induce vomiting. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101°F, shortness of breath, chest congestion or continued coughing and wheezing.

Notes:

Consider gastric lavage with protected airway, administration of activated charcoal. Call a doctor or poison control center for guidance.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Water Fog, Foam, CO₂, Dry Chemical.

Unsuitable extinguishing media:

Do not use water in a jet.

Further information:

Wear protective firefighting clothing Use self-contained breathing apparatus. Keep adjacent containers cool by spraying water.

Combustion products:

See Section 10.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage:

Use personal protective clothing. Breathing protection required. Keep from contacting skin or eyes. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safety areas. Remove all sources of ignition.

See Section 8 for protective equipment information.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special precautions:

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Keep containers closed when not in use. Do not expose containers to open flame, excessive heat, or direct sunlight. Keep away from sources of ignition. Do not smoke while using material. Take measures to prevent the buildup of electrostatic charge. Do not puncture or drop containers. Handle with care and avoid spillage on the floor (slippage). Keep material out of reach of children. Keep material away from incompatible materials. Wash thoroughly after handling.

Packaging requirements:

Keep container tightly closed. Avoid inhalation of vapors or mist upon opening container. Store in a well-ventilated place. Do not store at elevated temperatures. Do not store in direct sunlight. Long-standing contact with air and light may result in the formation of potentially explosive peroxides. Use caution. Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents, Amines, Halogens, reactive metals (Zinc & Aluminum) and their alloys (Brass), Alkali metals, Alkali salts, liquid Chlorine and Chlorates.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:

Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.

Eye protection:

When using material use safety goggles, gloves and apron according to HMIS PP, C. A vapor respirator according to HMIS PP, U is also strongly recommended if working with material in poorly ventilated spaces. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand protection:

Chemically resistant gloves, apron and safety goggles are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Skin protection:

Handle with gloves made from PVC, neoprene, nitrile, butyl-rubber or fluorinated-rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Exposure limit guidelines (mg/m³):

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapor.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:

Liquid

Color:

Amber

Odor:

Hydrocarbon

pH value:

Not applicable

Boiling point:

No data available.

Pour point:

Not determined

Flash point:

>93°C

Method:

Tag closed cup.

Flammability (explosion limits in air):	
Lower:	No data available.
Upper:	No data available.
Auto flammability (auto-ignition temperature):	> 320°C
Vapor pressure:	< 0.01 kPa (20°C)
Relative density (specific gravity):	1.03-1.08
Bulk density (solids):	Not applicable
Solubility in water:	Soluble
Viscosity:	No data available.
Relative vapor density (air=1):	No data available.
% Volatile:	No data available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.
Materials to avoid:	Oxidizers
Hazardous polymerization:	Will not occur.
Dust explosion hazard (solids):	Not applicable
Special hazards:	None
Hazardous decomposition products:	Aldehydes, Carbon Oxides, Hydrocarbon particulate, Ketones and Organic Acids.

11. TOXICOLOGICAL INFORMATION

Eye contact:	Mildly irritating
Skin contact:	Mildly irritating
Inhalation:	Low toxicity: LC50 greater than near-saturated vapor concentration.
Ingestion:	Mildly irritating
Carcinogenicity:	No data available.
Mutagenicity:	Not known to cause heritable genetic damage.
Teratogenicity:	Not known to cause birth defects.
Target organs what might be affected:	Not known
Sensitization:	Not known to cause allergic reaction.
Other:	None

12. ECOLOGICAL INFORMATION

Information on product as a whole:	
Main environmental hazards:	No data available.
Degradability:	No data available.
Other:	None known

13. DISPOSAL CONSIDERATIONS

Product:	Offer surplus and non-recyclable solutions to a licensed disposal company.
Container:	Drain container thoroughly. Vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Send to drum recoveree or metal reclaimer.

14. TRANSPORT INFORMATION

UN Number:	Not dangerous goods.
IMO Description:	Not regulated

Class:
Package Group:
Label:
EMS:
MFAAG:
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

This regulatory information is not intended to be comprehensive.

Other regulations may apply to this material.

Federal Regulatory Status:

Notification Status:

AICS: Not listed
DSL: Not listed
INV (CN): Not listed
TSCA: Not listed
EINECS: Not listed
KECI (KR): Not listed
PICCS (PH): Not listed

SARA Hazard Categories (311/312):

Fire Hazard:

Delayed (Chronic) Health Hazard:

State Regulatory Status

California State Drinking water and Toxic
Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the
State of California to cause cancer, birth defects or other
reproductive harm.

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***