

# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### 1.1 – Product identifier

Product name: UNIGEL FR Series  
Chemical name: Gelled hydrocarbon  
Appearance and odour: Cream-Beige gel

#### 1.2 – Relevant identified uses of the substance or mixture and uses advised against

Manufacture of substance: Industrial use for telecommunication cables  
Lubricants: Industrial  
Use in laboratories: Industrial & Professional

#### 1.3 – Details of the supplier of the safety data sheet

UNIGEL (UK) Ltd. Dudley Road, Tipton, West Midlands, DY4 8EH, United Kingdom	UNIGEL (USA) Inc. 1027 19 <sup>th</sup> Street S.W Hickory, North Carolina 28602 United States of America	UG Technologies Sdn. Bhd. Lot 21, Block A, Lorong Keluli 1C, Seksyen 7 40000 Shah Alam Selangor, Malaysia
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#### Contact details:

Tel: +44 (0) 1273 612122	Tel: +1 828 855 9075	Tel: + 60 (0) 3 3359 5138
Fax: +44 (0) 1273 855717	Fax: +1 828 855 9076	
Email: info@unigel.com		

#### 1.4 – Emergency telephone number

Telephone number: As Above (1.3)  
Hours of operation: Mon-Fri: 8:30 – 17:00  
Information limitation: Not applicable

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 – Classification of the substance or mixture

Product definition: Mixture  
Classification according to Regulation (EC) No. 1272/2008: to Not classified. This product contains highly defined base oil and is not considered to present any health hazards during normal use, although OEL for oil mist should be observed

#### 2.2 – Label elements

Signal word: No signal word  
Hazard statements: No known significant effects or critical hazards.  
Hazard symbol or symbols: Not applicable  
Indication of danger: Not applicable  
Risk phases: This product is not classified according to EU legislation  
Safety phases: Not applicable  
Hazardous ingredients: Not applicable  
Supplemental label elements: Material safety data sheet available for professional user on request

#### 2.3 – Other hazards

Other hazards which do not result in classification: Not available

# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical / Common Name	CAS No:	EINECS No:	Wt %:
Distillates (Fischer - Tropsch), heavy, C18-C50 – branched, cyclic and linear	848301-69-9*	482-220-0*	30-40
Aluminium hydroxide	21645-51-2	244-492-7	>50
Thermoplastic Elastomer	68648-89-5		0-5

\*This material satisfies note L of the CLP classification and can be shown to contain less than 3% DMSO extract as measured by IP346. Therefore, it is not classified as carcinogenic.

### SECTION 4: FIRST AID MEASURES

#### 4.1 – Description of first aid measures

General	When in doubt or if symptoms are observed, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eyes:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin:	In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Clean shoes thoroughly before reuse. Seek medical advice.
Inhalation:	Move exposed person to fresh air. Artificial respiration and/or oxygen may be necessary. Seek medical advice.
Ingestion:	Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control centre. Never give anything by mouth to an unconscious person. Seek medical advice.
Protection of first aiders:	First aider needs to protect himself. No action shall be taken involving any personal risk or without suitable training.

#### 4.2 – Most important symptoms and effects, both acute and delayed

Potential acute health effects:	No known significant effects or critical hazards
Over-exposure signs/symptoms:	Long term skin contact could cause skin dryness.

#### 4.3 – Indication of any immediate medical attention and special treatment needed

Notes to physician:	Treat symptomatically.
Specific treatments:	No specific treatment or known antidote.

### SECTION 5: FIRE FIGHTING MEASURES

#### 5.1 – Extinguishing media

Suitable extinguishing media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water fog (Specifically trained personnel only). Dry chemical powder Carbon dioxide
Unsuitable extinguishing media:	Do not use direct water jets on the burning product; they could cause splattering and spread the fire.

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# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### 5.2 – Special hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur, and the container may burst.

Hazardous combustion products: Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), smoke and irritating vapours as products of incomplete combustion.

### 5.3 – Advice for fire fighters

Special precautions for fire-fighters: Promptly isolate the scene by removing all persons from the facility of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Exercise caution when fighting any chemical fire. Cool closed containers exposed to fire with water spray or fog.

Special protective equipment for fire-fighters: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus.

Additional information: Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. In case of fire and/or explosion do not breathe fumes. Prevent fire extinguishing water from contaminating surface water or the ground water system. Contaminated extinguishing water must be disposed of in accordance with official regulations.

## SECTION 6: ACCIDENTAL RELEASE MEASURE

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

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate unauthorised personnel to safe areas. Use personal protective equipment recommended in Section 8. Ensure adequate ventilation. Keep away from ignition sources. Material can create slippery conditions. Do not touch or walk through spilt material.

For emergency responders: Keep unauthorised personnel away. Use personal protection recommended in Section 8.

### 6.2 – Environmental precaution

Accidental spillage and release of material into the environment: Avoid dispersal of spilt material and runoff and contact with oil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution.

### 6.3 – Methods and materials for containment and cleaning up

Small spillage: Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Remove all sources of ignition. Ensure adequate ventilation. Non-sparking tools should be used. Sweep up and shovel into suitable containers for disposal. Dispose of via a licensed waste disposal contractor.

Large spillage: Prevent further leakage or spillage if safe to do so. Move container from spill area once the leak have been stopped. Prevent entry into sewers, watercourses or confined areas. Soak up with inert absorbent material. Remove all sources of ignition. Ensure adequate ventilation. Non-sparking tools should be used. Sweep up and shovel into suitable containers for disposal. Dispose of via a licensed waste disposal contractor.

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# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### 6.4 – Reference to other sections:

See **section 1** for emergency contact information.  
See **section 8** for information on appropriate personal protective equipment.  
See **section 13** for additional waste treatment information.

## SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. It shall emphasise precautions that are appropriate to the identified used referred to under **subsection 1.2** and the unique properties of the substance mixture.

### 7.1 – Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (See **section 4** and **section 8**). Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.

Advice on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and other exposed areas with mild soap and water after use, before eating, drinking or smoking and when leaving work. Remove contaminated clothing and protective equipment before entering eating and drinking areas.

### 7.2 – Conditions for safe storage, including any incompatibilities.

Storage condition:

Store in accordance with local regulations. Store in original container protected from direct sunlight, in a dry, cool and well-ventilated area, away from incompatible materials (see **section 10**) and elevated temperature. Keep containers tightly closed and sealed until ready for use. Keep Drum/IBC/Unibag/SS-Vessel/Keg covered away from rain, if left outside in open environment.

Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 – Specific end use(s)

Industrial sector specific solution:

Not available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 – Control parameters

\*Based on main components used.

Component	Value type (form of exposure)	Control parameters / permissible concentration	Basis
Base Oil 848301-69-9	TWA (Mist)	5 mg/m <sup>3</sup>	CA AB OEL
	STEL (Mist)	10 mg/m <sup>3</sup>	CA AB OEL
	TWAEV (Mist)	5 mg/m <sup>3</sup>	CA QC OEL
	STEV (Mist)	10 mg/m <sup>3</sup>	CA QC OEL
	TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH

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# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

Metal hydroxide 21645-51-2	ACGIH-TWA (respirable fraction)	1 mg/m <sup>3</sup> TWA	
	OSHA – TWA	Not established	
	OSHA – TWA	Not established	
	NIOSH - TWA	Standard not set	
	Austria (respirable fraction) (inhalable fraction)	5 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>	
	Austria (respirable fraction) (inhalable fraction)	10 mg/m <sup>3</sup> 20 mg/m <sup>3</sup>	
	Belgium (respirable fraction)	1 mg/m <sup>3</sup>	
	Bulgaria (metal) (respirable fraction) (dust)	2.0 MGM <sup>3</sup> 1.5 mg/m <sup>3</sup> 10.0 mgm <sup>3</sup>	
	Croatia (respirable dust)	6 mg/m <sup>3</sup>	
	Czech Republic (dust)	10 mg/m <sup>3</sup>	
	Estonia	2 mg/m <sup>3</sup>	
	Finland (metal)	2 mg/m <sup>3</sup>	
	Germany (respirable dust) (inhalable dust)	3 mg/m <sup>3</sup> 10 mg/m <sup>3</sup> BAT: 200 µg/l	
	Ireland (total inhalable dust) (respirable dust)	10 mg/m <sup>3</sup> 4 mg/m <sup>3</sup>	
	Ireland (total inhalable dust) (respirable dust)	30 mg/m <sup>3</sup> 12 mg/m <sup>3</sup>	
	Italy (respirable fraction)	1 mg/m <sup>3</sup>	
	Latvia	6 mg/m <sup>3</sup>	
	Lithuania	6 mg/m <sup>3</sup>	
	Netherlands	0.05 mg/m <sup>3</sup>	
	Poland (respirable dust and/or fume (metal)) (fume, total dust (metal))	1.2 mg/m <sup>3</sup> 2.5 mg/m <sup>3</sup>	
	Romania (dust) (fume)	3 mg/m <sup>3</sup> 1 mg/m <sup>3</sup>	

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# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

	Slovakia (respirable fraction) (inhalable fraction)	1.5 mg/m <sup>3</sup> 4 mg/m <sup>3</sup>	
	Slovenia (respirable fraction)	6 mg/m <sup>3</sup>	
	Sweden (total dust (metal))	11 mg/m <sup>3</sup>	
	Switzerland (respirable dust)	3 mg/m <sup>3</sup>	
	UK (inhalable dust) (respirable dust)	10 mg/m <sup>3</sup> 4 mg/m <sup>3</sup>	
<b>DNEL/DMEL and PNEC values</b> <b>Metal hydroxide</b> Inhalation – Chronic local effects, workers      3 mg/m <sup>3</sup> Oral – Chronic systemic effects, consumers      6.85 mg/kg bw/day Predicted No Effect Concentration (PNEC) <b>Metal hydroxide</b> Sewage treatment plant      20 mg/l			

### 8.2 – Exposure controls

Appropriate engineering controls:

Do not handle until all safety precautions have been read and understood. Ensure adequate ventilation, especially in confined areas. Provide a good standard of controlled ventilation (10 to 15 air changes per hour) Use exhaust ventilation to keep airborne concentrations below exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

#### 8.2.1 – Individual protection measure

Eye/ Face protection:

Wear safety glasses with side shields (or goggles). Wear face-shield and protective suit for abnormal processing problems.

Skin protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling the mixture/gel products if a risk assessment indicates this is necessary. Wear suitable gloves tested to EN 374. Personal protective equipment for the body, appropriate footwear and any additional skin protection measures should be selected based on the task being performed, and the risks involved.

# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

Respiratory protection:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. When workers are facing concentrations above the exposure limit, they must use appropriate certified respirators.
Thermal hazard:	None required under normal conditions.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling. The worker should wash daily at the end of each work shift, and prior to eating, drinking, smoking etc

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 – Information on basic physical and chemical properties

Appearance:	Cream-Beige gel
Odour:	Essentially odourless
Odour threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point: (Open cup)	≥250 °C
Evaporation rate:	Not available
Flammability (Solid, gas):	Not available
Upper/lower flammability or explosive limits:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Density (25 °C) :	1.35 g/ml
Solubility (ies):	Insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	12.5 Pa.s (50 s <sup>-1</sup> , 25 °C)
Explosive properties:	Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Oxidising properties:	Not available

**9.1 – Other information** No additional information

# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reaction will not occur.
Conditions to avoid:	Avoid prolonged exposure to heat or UV light since this may affect product quality and properties. Avoid all sources of ignition: heat, sparks, open flame.
Incompatible materials:	Avoid contact with strong acids, alkalis and oxidising agents.
Hazardous decomposition products:	Does not decompose at ambient temperature May release CO <sub>x</sub> , NO <sub>x</sub> , SO <sub>x</sub> , smoke and irritating vapours when heated to decomposition.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 – Information on toxicological effects

##### 11.1.1 – Relevant hazard classes

Acute toxicity:	Not available
Acute toxicity – [base oil]:	
Acute oral toxicity:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity:	LC50 (Rat): > 5.2 mg/l Exposure time: 4h Test atmosphere: dust/mist
Acute dermal toxicity:	LD50 (Rabbit) > 2,000 mg/kg
Acute toxicity – [metal hydroxide]:	
Acute oral toxicity:	LD50 (Rat): > 2,000 mg/kg
Acute inhalation toxicity:	LC50 (Rat): > 2.3 mg/l (M2O3) Exposure time: 4h Aerosol Highest achievable concentration
Skin corrosion/irritation:	Not available
Serious eye damage/irritation:	Not available
Respiratory or skin sensitisation:	Not available
Germ cell mutagenicity:	Not available
Carcinogenicity:	Not available
Reproductive toxicity:	Not available
STOT-single exposure:	Not available
STOT-repeated exposure:	Not available
Aspiration hazard:	Not available

##### 11.1.2 – Information on likely routes of exposure

Routes of entry anticipated:	Oral, Dermal, and Inhalation.
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##### 11.1.3 – Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	Not available
Ingestion:	Not available
Skin contact:	Long term skin contact could cause skin dryness.



# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### 11.1.4 – Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short-term potential immediate effects:	Not available
Short-term potential delayed effects:	Not available
Long-term potential immediate effects:	Not available
Long-term potential delayed effects:	Not available
Potential chronic health effects:	Not available

### 11.1.5 – Potential chronic health effects

Conclusion/Summary:	Not available
General:	No known significant effects or critical hazards
Carcinogenicity:	Not listed as carcinogenic by OSHA, NTP or IARC
Mutagenicity:	No known significant effects or critical hazards
Teratogenicity:	No known significant effects or critical hazards
Developmental effects:	No known significant effects or critical hazards
Fertility effects:	No known significant effects or critical hazards

**11.1.6 – Other information:** Not available

## SECTION 12: ECOLOGICAL INFORMATION

General:	In the absence of specific environmental data for this product, the assessment is based on information for general hydrocarbon components found in lubricant mineral oils. Leaching and penetration through surface soils is generally regarded as resulting in long-term persistence. Based on chemical/physical information from the literature for this product category, no harmful effect to terrestrial or aquatic habitats would be expected.
Toxicity:	Not available
Persistence and degradability:	Not available
Bio-accumulative potential:	Not available
Mobility in soil:	Not available
Results of PBT and vPvB assessment:	Not available
Other adverse effects:	No known significant effects or critical hazards.

## SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment method:	Dispose in a safe manner in accordance with local/national regulations. Place contaminated materials in disposable containers and send to a licensed waste management company. Do not empty into drains, sewers or watercourses.
Hazardous waste:	Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

# MATERIAL SAFETY DATA SHEET



## UNIGEL FR Series

Revision Date: January 2024

### SECTION 14: TRANSPORT INFORMATION

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not classified as hazardous
Packing group:	Not applicable
Environmental hazards:	Not classified as hazardous
Special precautions for user:	Not applicable
Transport in bulk according to Annex II of Marpol and the IBC code:	None known
Usual shipping containers:	Tanks, totes (IBS), fluid bag, drums & cans
Shipping Methods:	Air, rail and sea
IATA:	Not regulated

### SECTION 15: REGULATORY INFORMATION

#### 15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture

EC Classification:	Not classified
EC labelling (Symbol, R&S phases):	Not required
OSHA (29CFR 1910.1200):	Not classified as hazardous
Hazard label data:	Not classified
SARA Title III:	Contain no extremely hazardous substances
SARA 311/312 reportable hazard:	None
SARA 313 toxic release program:	Contains no chemicals
Statutory information:	The Health and Safety work etc Act, 1974, Environmental Protection Act. 1990

#### 15.2 – Chemical safety assessment: Complete

(All main components of this material are listed on or in compliance with the following inventories: EINECS, DSL, TSCA, AICS, KECI, PICCS and IECSC.

### SECTION 16: OTHER INFORMATION

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