

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

Page 1/8

RIGEL-G

Revision 20
Revision date 2016-10-04

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|--------------|---------|
| Product name | RIGEL-G |
| Product code | qafs559 |

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

| | |
|-------------|---|
| Product Use | [SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; ----- [SU21] Consumer uses: Private households (= general public = consumers); ----- [SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU1] Agriculture, forestry, fishery; |
| Description | No data is available on this product. |

1.3. Details of the supplier of the safety data sheet

| | |
|---------------------------------------|---|
| Company | Orion Future Technology Ltd |
| Address | Henwood House, Henwood. Ashford, Kent, TN24 8DH |
| Web | www.orionft.com |
| Telephone | 0800 002 5980 |
| Email | gidon@orionft.com |
| Email address of the competent person | gidon@orionft.com |

1.4. Emergency telephone number


| | |
|----------------------------|----------------------------|
| Emergency telephone number | 0800 002 5980 9am - 5pm |
|----------------------------|----------------------------|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

| | |
|--------------------------------------|--|
| 2.1.1. Classification - 1999/45/EC | Xn; R22 Xi; R41 R10 Symbols: Xn: Harmful. |
| Main hazards | Flammable. Harmful if swallowed. Risk of serious damage to eyes. |
| 2.1.2. Classification - EC 1272/2008 | Flam. Liq. 3: H226; Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Dam. 1: H318; Acute Tox. 4: H332; |

2.2. Label elements

| | |
|-------------------|---|
| Hazard pictograms |  |
| Signal Word | Danger |
| Hazard Statement | Flam. Liq. 3: H226 - Flammable liquid and vapour. Acute Tox. 4: H302 - Harmful if swallowed. |

RIGEL-G

Revision 20
Revision date 2016-10-04

2.2. Label elements

| | |
|--|--|
| Precautionary Statement: Prevention | Skin Irrit. 2: H315 - Causes skin irritation. Eye Dam. 1: H318 - Causes serious eye damage. Acute Tox. 4: H332 - Harmful if inhaled. |
| | P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground/bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting// equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash hands and other contacted skin thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary Statement: Response | P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/ /if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water/ . P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - IF INHALED: Remove person to fresh air and keep 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. P310 -Immediately call a POISON CENTER/doctor/ . P312 - Call a POISON CENTER/doctor/ /if you feel unwell. P321 - Specific treatment (see % on this label). P330 - Rinse mouth. P332+P313 - If skin irritation occurs: Get medical advice/attention. P370+P378 - In case of fire: Use to extinguish. |
| Precautionary Statement: Storage | P403+P235 - Store in a well-ventilated place. Keep cool. |
| Precautionary Statement: Disposal | P501 - Dispose of contents/container to an approved waste contractor. |

2.3. Other hazards

| | |
|----------------------|--|
| Other hazards | PBT not identified as a PBT substance. |
|----------------------|--|

SECTION 3: Composition/information on ingredients

3.2. Mixtures

67/548/EEC / 1999/45/EC

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification | M-factor. |
|---------------------------------|-----------|-------------|-----------|---------------------------|--------------|---------------------------------|-----------|
| Polyether modified polysiloxane | | 134180-76-0 | | | 1 - 10% | Xn; R20/21 Xi; R38-41 N; R51/53 | |
| Salicylaldehyde | | 90-02-8 | 201-961-0 | 01-2119931635-36 | 40 - 50% | Xn; R22 | |
| Alkyloxypolyethyleneoxyethanol | | 68131-40-8 | | | 30 - 40% | Xn; R22 Xi; R41 | |

RIGEL-G

Revision 20

Revision date 2016-10-04

3.2. Mixtures

EC 1272/2008

| Chemical Name | Index No. | CAS No. | EC No. | REACH Registration Number | Conc. (%w/w) | Classification | M-factor. |
|--|--------------|-------------|-----------|---------------------------|--------------|--|-----------|
| tetraethyl silicate . (Tetraethylacetate) | 014-005-00-0 | 78-10-4 | 201-083-8 | 01-2119496195-28 | 10 - 20% | Flam. Liq. 3: H226; Eye Irrit. 2: H319; Acute Tox. 4: H332; STOT SE 3: H335; | |
| Polyether modified polysiloxane | | 134180-76-0 | | | 1 - 10% | Acute Tox. 4: H312+H332; Eye Irrit. 2: H319; Aquatic Chronic 2: H411; | |
| Arnica Extract H.G. | | 8001-21-6 | 232-273-9 | | 0 - 0.5% | | |
| Salicylaldehyde | | 90-02-8 | 201-961-0 | 01-2119931635-36 | 40 - 50% | Acute Tox. 4: H302; | |
| Alkyloxypolyethyleneoxyethanol | | 68131-40-8 | | | 30 - 40% | Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Dam. 1: H318; Acute Tox. 4: H332; | |

Further information

| | |
|--------------------|---|
| Product Shelf Life | Recommended shelf life 3 years from date of delivery. |
|--------------------|---|

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|--------------|---|
| Inhalation | Move the exposed person to fresh air. |
| Eye contact | Rinse immediately with plenty of water. Contact lenses should be removed. |
| Skin contact | Remove contaminated clothing. Wash with water and soap as a precaution. |
| Ingestion | DO NOT INDUCE VOMITING. Rinse mouth thoroughly. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|--------------|--|
| Inhalation | High concentration of vapour in enclosed space may cause irritation, headaches and nausea. May cause irritation to respiratory system. |
| Eye contact | Causes serious eye damage. |
| Skin contact | May cause skin dryness and irritation. Prolonged contact may cause defatting of the skin. |
| Ingestion | May cause irritation to mucous membranes. |

4.3. Indication of any immediate medical attention and special treatment needed

| | |
|--------------|---|
| Inhalation | TREAT SYMPTOMATICALLY. Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist. |
| Eye contact | Contact lenses should be removed. Rinse immediately with plenty of water. Seek medical attention if irritation or symptoms persist. |
| Skin contact | Seek medical attention if irritation or symptoms persist. |
| Ingestion | Drink 1 to 2 glasses of water. Seek medical attention if irritation or symptoms persist. |

General information

| | |
|--|---|
| | If you feel unwell, seek medical advice (show the label where possible). Treat symptomatically. |
|--|---|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--|---|
| | Flammable liquid. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|--|---|

5.2. Special hazards arising from the substance or mixture

| | |
|--|---|
| | Burning produces irritating, toxic and obnoxious fumes. |
|--|---|

5.3. Advice for firefighters

| | |
|--|---|
| | Wear suitable respiratory equipment when necessary. |
|--|---|

Further information

| | |
|--|---|
| | In the event of a fire and/or explosion do not breath fumes. Standard procedure for chemical fires. |
|--|---|

RIGEL-G

Revision 20
Revision date 2016-10-04

Further information

| | |
|--|---|
| | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|--|---|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|--|---|
| | Wear suitable protective equipment. Flammable liquid. Avoid sparks, flames, heat and sources of ignition. |
|--|---|

6.2. Environmental precautions

| | |
|--|---|
| | Advise local authorities if large spills cannot be contained. |
|--|---|

6.3. Methods and material for containment and cleaning up

| | |
|--|--|
| | Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Avoid sparks, flames, heat and sources of ignition. |
|--|--|

6.4. Reference to other sections

| | |
|--|--|
| | See section 2, 7, 8, 13 for further information. |
|--|--|

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|--|---|
| | Adopt best Manual Handling considerations when handling, carrying and dispensing. |
|--|---|

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--|---|
| | Flammable liquid. Avoid sparks, flames, heat and sources of ignition. Avoid storing in direct Sun Light. Store in a well-ventilated place. Keep cool. Store in original container. Keep container tightly closed. Keep away from combustible material. Keep out of the reach of children. |
|--|---|

7.3. Specific end use(s)

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

Suitable packaging


| | |
|--|---------------------|
| | Plastic containers. |
|--|---------------------|

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|--|---------------------------------|
| | Occupational exposure controls. |
|--|---------------------------------|

8.2. Exposure controls

| | |
|--|--|
| |  |
| | Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. Use appropriate personal protective equipment. Wear suitable protective clothing and eye/face protection. |
| Eye / face protection | Avoid contact with eyes. If splashes are likely to occur, wear: safety glasses with side-shields. |
| Skin protection - Handprotection | Rubber gloves. |
| Respiratory protection | No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment. |
| 8.2.3. Environmental exposure controls | Prevent further leakage or spillage if safe to do so. |

SECTION 9: Physical and chemical properties

RIGEL-G

Revision 20
Revision date 2016-10-04

9.1. Information on basic physical and chemical properties

| | |
|----------------------------------|--------------------------------|
| Appearance | Liquid |
| Colour | Amber |
| Odour | Characteristic |
| Odour threshold | No data available |
| pH | No data available |
| Melting point | No data available |
| Initial boiling point | No data available |
| Flash point | 44.5 °C |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Relative density | 1.07 - 1.078 g/cm ³ |
| Partition coefficient | No data available |
| Autoignition temperature | No data available |
| Viscosity | < 50 centipoise |
| Explosive properties | No data available |
| Oxidising properties | No data available |
| Solubility | No data available |

9.2. Other information

| | |
|---|-------------------|
| Conductivity | No data available |
| Surface tension | No data available |
| Gas group | No data available |
| Benzene Content | No data available |
| Lead content | No data available |
| VOC (Volatile organic compounds) | No data available |

SECTION 10: Stability and reactivity

10.1. Reactivity

| | |
|--|---|
| | Flammable liquid. Stable under normal conditions. |
|--|---|

10.2. Chemical stability

| | |
|--|---|
| | Flammable liquid. Stable under normal conditions. |
|--|---|

10.3. Possibility of hazardous reactions

| | |
|--|--|
| | Oxidising agents. Combustible materials. |
|--|--|

10.4. Conditions to avoid

| | |
|--|--|
| | Avoid sparks, flames, heat and sources of ignition. Avoid storing in direct Sun Light. |
|--|--|

10.5. Incompatible materials

| | |
|--|-------------------|
| | Oxidising agents. |
|--|-------------------|

10.6. Hazardous decomposition products

| | |
|--|--|
| | No Hazardous decomposition products when stored and handled correctly. Burning produces irritating, toxic and obnoxious fumes. |
|--|--|

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|--------------------------------------|---|
| Skin corrosion/irritation | Not anticipated under normal conditions of use. May cause irritation to skin. |
| Serious eye damage/irritation | Not anticipated under normal conditions of use. Causes serious eye damage. |

RIGEL-G

Revision 20
Revision date 2016-10-04

11.1. Information on toxicological effects

| | |
|-----------------------------------|---|
| Respiratory or skin sensitisation | Not anticipated under normal conditions of use. May cause irritation to respiratory system. |
| Repeated or prolonged exposure | Prolonged contact may cause defatting of the skin. |

11.1.2. Mixtures

| | |
|--|--------------------|
| | No data available. |
|--|--------------------|

11.1.3. Hazard Information

| | |
|--|--------------------|
| | No data available. |
|--|--------------------|

11.1.4. Toxicological Information

| | |
|--|-------------------|
| | No data available |
|--|-------------------|

SECTION 12: Ecological information

12.1. Toxicity

| | |
|--|-------------------|
| | No data available |
|--|-------------------|

12.2. Persistence and degradability

| | |
|--|--|
| | Substance biodegrades at a moderate rate and inherently biodegradable according to the OECD guide lines. |
|--|--|

12.3. Bioaccumulative potential

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

Partition coefficient

| | |
|--|---------------------------|
| | RIGEL-G No data available |
|--|---------------------------|

12.4. Mobility in soil

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

12.5. Results of PBT and vPvB assessment

| | |
|--|---------------------------------------|
| | No data is available on this product. |
|--|---------------------------------------|

12.6. Other adverse effects

| | |
|--|--------------------|
| | No data available. |
|--|--------------------|

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|--|
| | Dispose of waste and residues in accordance with local authority requirements. |
|--|--|

General information

| | |
|--|--|
| | Dispose of in compliance with all local and national requirements. |
|--|--|

Disposal of packaging

| | |
|--|---|
| | Do NOT reuse empty containers. Empty containers can be sent to landfill after cleaning, if in compliance with local and national regulations. |
|--|---|

SECTION 14: Transport information

Hazard pictograms

| | |
|--|---|
| |  |
|--|---|

RIGEL-G

Revision 20

Revision date 2016-10-04

| | |
|------------------------|--------|
| 14.1. UN number | |
| | UN1993 |

| | |
|--------------------------------------|--|
| 14.2. UN proper shipping name | |
| | FLAMMABLE LIQUID, N.O.S. (contains Tetraethyl silicate solution) |

| | |
|---|---|
| 14.3. Transport hazard class(es) | |
| ADR/RID | 3 |
| Subsidiary risk | - |
| IMDG | 3 |
| Subsidiary risk | - |
| IATA | 3 |
| Subsidiary risk | - |

| | |
|----------------------------|-----|
| 14.4. Packing group | |
| Packing group | III |

| | |
|------------------------------------|----|
| 14.5. Environmental hazards | |
| Environmental hazards | No |
| Marine pollutant | No |

| | |
|-----------------|-------|
| ADR/RID | |
| Hazard ID | 30 |
| Tunnel Category | (D/E) |

| | |
|-------------|---------|
| IMDG | |
| EmS Code | F-E S-E |

| | |
|---------------------------------|-------|
| IATA | |
| Packing Instruction (Cargo) | 366 |
| Maximum quantity | 220 L |
| Packing Instruction (Passenger) | 355 |
| Maximum quantity | 60 L |

SECTION 15: Regulatory information

| | |
|---|--|
| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | |
| Regulations | <p>REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.</p> <p>COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.</p> |

| | |
|---|---------------------------|
| 15.2. Chemical safety assessment | |
| | No information available. |

SECTION 16: Other information

| |
|--------------------------|
| Other information |
|--------------------------|

RIGEL-G

Revision 20

Revision date 2016-10-04

Other information

| | |
|---|---|
| Revision | This document differs from the previous version in the following areas: 3 - Product Shelf Life. |
| Text of risk phrases in Section 3 | R20/21 - Harmful by inhalation and in contact with skin. R22 - Harmful if swallowed. R38 - Irritating to skin. R41 - Risk of serious damage to eyes. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Text of Hazard Statements in Section 3 | Flam. Liq. 3: H226 - Flammable liquid and vapour. Eye Irrit. 2: H319 - Causes serious eye irritation. Acute Tox. 4: H332 - Harmful if inhaled. STOT SE 3: H335 - May cause respiratory irritation. Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects. Acute Tox. 4: H302 - Harmful if swallowed. Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled Skin Irrit. 2: H315 - Causes skin irritation. Eye Dam. 1: H318 - Causes serious eye damage. |

Further information

| | |
|--|--|
| | The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. |
|--|--|