## Revision summary — this update supersedes the 2022 SDS

This revision brings the Sigrun CCC 750 SL SDS into line with the confirmed originator: BASF 3C Chlormequat 750 SDS v4.0 (29/06/2022, MAPP 16690). Substantive changes vs the 2022 first-issue SDS are flagged in-line with amber "CHANGED FROM 2022 SDS" notes.

- Classification: Met. Corr. 1 (H290), Acute Tox. 3 oral (H301), Acute Tox. 4 dermal (H312), Aquatic Chronic 3 (H412). Signal word DANGER.
- Divergent from Annex VI: BASF classifies chlormequat chloride as Acute Tox. 3 (oral) based on human data (LD50 50-200 mg/kg), whereas the harmonised Annex VI classification is Acute Tox. 4. The originator SDS explicitly flags this. The Sigrun label already reflects the stricter (BASF) classification.
- Pictograms: GHS05 (corrosion) + GHS06 (skull-and-crossbones).
- Full CLP precautionary statement set (16 P-phrases) added.
- Transport: UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (Chlormequat Chloride) — Classes 8, 6.1; PG III (all modes).
- Composition: chlormequat chloride 65.56% w/w with EC 213-666-4 / Index 007-003-00-6.
- Physical properties, tox, ecotox and regulatory framework refreshed per BASF originator data. Header now carries the Sigrun brand logo.

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

### 1.1. Product identifier

| | |
|---|---|
| **Product name:** | SIGRUN CCC 750 |
| **Product type:** | Soluble concentrate (SL) containing 747.8 g/L (65.56% w/w) chlormequat chloride |
| **MAPP number:** | 21270 |
| **UFI:** | [to be assigned — see revision note in Section 16] |
| **Originator product:** | BASF 3C Chlormequat 750 (MAPP 16690) |

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

| | |
|---|---|
| **Use of substance / mixture:** | Plant Protection Product — Plant Growth Regulator. For professional use in winter and spring wheat, winter and spring barley, oats, rye and triticale. This product must be sold and used only in England, Scotland and Wales. |
| **Uses advised against:** | Any use not specified on the product label. |

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

| | |
|---|---|
| **Marketing Company & Authorisation Holder:** | Sigrun Agriculture DMCC<br>Unit No: 2705-D15, Mazaya Business Avenue AA1<br>Plot No: JLTE-PH2-AA1<br>Jumeirah Lakes Towers, Dubai, UAE<br>Tel: +971 (0)58 511 5029<br>Email: sales@sigrunag.com<br>Web: sigrunag.com |

### 1.4. Emergency telephone number

| | |
|---|---|
| **Company 24h emergency line:** | +971 (0)58 511 5029 |
| **UK medical emergency:** | NHS 111 (England, Scotland, Wales) / 999 in life-threatening emergency. UK National Poisons Information Service (health professionals only): 0344 892 0111. |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

| | |
|---|---|
| **Classification under GB CLP:** | Met. Corr. 1: H290<br>Acute Tox. 3 (Oral): H301<br>Acute Tox. 4 (Dermal): H312<br>Aquatic Chronic 3: H412 |

*** CHANGED FROM 2022 SDS:** *Classification aligned with BASF 3C Chlormequat 750. Note: this is stricter than the Annex VI harmonised classification for chlormequat chloride (Acute Tox. 4). BASF's more conservative Acute Tox. 3 (oral) classification is based on human LD50 data (50-200 mg/kg) and takes precedence over the animal data (rat LD50 520 mg/kg) under CLP Article 5(3). The Sigrun label already reflects this stricter classification.*

| | |
|---|---|
| **Most important adverse effects:** | May be corrosive to metals. Toxic if swallowed. Harmful in contact with skin. Harmful to aquatic life with long lasting effects. |

### 2.2. Label elements

| | |
|---|---|
| **Signal word:** | Danger |
| **Hazard pictograms:** | GHS05: Corrosion<br>GHS06: Skull and crossbones |
| **Hazard statements:** | H290: May be corrosive to metals.<br>H301: Toxic if swallowed.<br>H312: Harmful in contact with skin.<br>H412: Harmful to aquatic life with long lasting effects. |
| **Precautionary statements — general:** | P101: If medical advice is needed, have product container or label at hand.<br>P102: Keep out of reach of children.<br>P103: Read carefully and follow all instructions. |
| **Precautionary statements — prevention:** | P234: Keep only in original packaging.<br>P264: Wash contaminated body parts thoroughly after handling.<br>P280: Wear protective gloves and clothing. |
| **Precautionary statements — response:** | P312: Call a POISON CENTER or physician if you feel unwell.<br>P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or physician.<br>P303+P352: IF ON SKIN (or hair): Wash with plenty of soap and water.<br>P330: Rinse mouth.<br>P361: Take off immediately all contaminated clothing.<br>P363: Wash contaminated clothing before reuse.<br>P390: Absorb spillage to prevent material damage. |
| **Precautionary statements — storage:** | P405: Store locked up. |
| **Precautionary statements — disposal:** | P501: Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste. |
| **Supplemental:** | EUH401: To avoid risks to human health and the environment, comply with the instructions for use. |

### 2.3. Other hazards

| | |
|---|---|
| **PBT / vPvB:** | This mixture does not contain a substance fulfilling PBT or vPvB criteria. |
| **Endocrine disruptors:** | The product does not contain a substance above legal limits identified as having endocrine-disrupting properties per Regulation (EU) 2017/2100 or (EU) 2018/605. |

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

| | |
|---|---|
| **Chemical nature:** | Crop protection product, plant growth regulator, soluble concentrate (SL) |

**Hazardous ingredients:**

| Chemical name | CAS-No. | EC / Index No. | Classification (as used by originator) | % w/w |
|---|---|---|---|---|
| CHLORMEQUAT CHLORIDE (ISO); 2-chloroethyltrimethylammonium chloride | 999-81-5 | EC 213-666-4 / Index 007-003-00-6 | Acute Tox. 3 (Oral): H301; Acute Tox. 4 (Dermal): H312; Aquatic Chronic 3: H412 | 65.56% |

*Note on divergent classification: The harmonised classification in Annex VI of Regulation (EC) No 1272/2008 (Index 007-003-00-6) is Acute Tox. 4 (Oral, H302) + Acute Tox. 4 (Dermal, H312). BASF applies the stricter Acute Tox. 3 (Oral, H301) under CLP Article 5(3) on the basis of human LD50 data (50-200 mg/kg). This SDS follows the BASF classification because that is what the Sigrun product label declares.*

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General advice:** Show container, label and/or safety data sheet to physician. First-aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

**If inhaled:** Keep patient calm, remove to fresh air, seek medical attention.

**Skin contact:** Immediately wash thoroughly with soap and water, seek medical attention.

**Eye contact:** Wash affected eyes for at least 15 minutes under running water with eyelids held open.

**Ingestion:** Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

**Symptoms:** Toxic if swallowed. Chlormequat chloride is a quaternary ammonium compound; ingestion may cause nausea, vomiting, sweating, salivation, diarrhoea, cardiac disorders, visual disturbances and, at high dose, unconsciousness. The substance may reversibly affect the nervous system, but there are no indications of permanent nerve cell damage.

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

**Treatment:** Treat according to symptoms (decontamination, vital functions). No known specific antidote.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:** Water spray. Foam. Dry powder. Carbon dioxide ($CO_2$).

**Unsuitable extinguishing media:** Water jet.

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

**Hazardous combustion products:** Carbon monoxide, carbon dioxide, hydrogen chloride, halogenated compounds, nitrogen oxides. The substances/groups of substances mentioned can be released in case of fire.

### 5.3. Advice for fire-fighters

**Protection during fire-fighting:** Wear self-contained breathing apparatus and chemical-protective clothing.

**Further information:** Collect contaminated extinguishing water separately; do not allow to reach sewage or effluent systems. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

## SECTION 6: Accidental release measures

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

**Personal precautions:** Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil. If the product contaminates rivers, lakes or drains, inform the Environment Agency (or SEPA/NRW/NIEA as appropriate). Keep people and animals away.

### 6.3. Methods and material for containment and cleaning up

**Small amounts:** Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

**Large amounts:** Dike spillage. Pump off product.

**General:** Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

### 6.4. Reference to other sections

**Reference:** See Sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Precautions:** No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

**Protection against fire/explosion:** No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

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

**Storage conditions:** Segregate from foods and animal feeds. Keep away from heat. Protect from direct sunlight.

**Temperature range:** Store between −10 °C and +40 °C. Changes in the properties of the product may occur if stored outside this range for extended periods of time.

**Materials to avoid:** See Section 10.5.

### 7.3. Specific end use(s)

**Specific use(s):** Plant protection product subject to Regulation (EC) No 1107/2009 as retained in GB law. Use in accordance with the product label and the Code of Practice for Using Plant Protection Products.

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

**Occupational exposure limits:** No substance-specific UK Workplace Exposure Limit (WEL) is assigned to chlormequat chloride. Refer to the current edition of HSE Guidance Note EH40. For normal use and handling refer to the product label/leaflet.

### 8.2. Exposure controls

| | |
|---|---|
| **Respiratory protection:** | Suitable respiratory protection for lower concentrations or short-term effect: combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles — EN 14387 Type ABEK-P3. |
| **Hand protection (EN ISO 374-1):** | Suitable chemical-resistant safety gloves (Protection Index 6, breakthrough > 480 min):<br>• Nitrile rubber (NBR), thickness ≥ 0.4 mm;<br>• Chloroprene rubber (CR), thickness ≥ 0.5 mm;<br>• Butyl rubber, thickness ≥ 0.7 mm. |
| **Eye protection:** | Safety glasses with side-shields (frame goggles) conforming to EN 166. |
| **Body protection:** | Choose according to activity and possible exposure: apron, protective boots, chemical-protection suit (EN 14605 in case of splashes or EN ISO 13982 in case of dust). |
| **Hygiene measures:** | Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. Wash hands and exposed skin thoroughly after handling. |

## SECTION 9: Physical and chemical properties

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

| | |
|---|---|
| **Physical state:** | Liquid |
| **Colour:** | Light yellow |
| **Odour:** | Sweetish, moderate odour |
| **Odour threshold:** | Not determined due to potential health hazard by inhalation |
| **pH:** | Approx. 3 – 7 (1% w, 20 °C) |
| **Melting point:** | Approx. −17 °C |
| **Boiling point:** | Approx. 100 °C (ISO 2719) |
| **Flash point:** | No flash point — measurement made up to the boiling point |
| **Ignition temperature:** | Approx. 355 °C |
| **Vapour pressure:** | Approx. 23.3 hPa at 20 °C (information applies to the solvent) |
| **Density:** | Approx. 1.14 g/cm³ at 20 °C |
| **Solubility in water:** | Miscible |
| **Partition coefficient (log Kow, chlormequat):** | −3.47 (pH 7) |
| **Thermal decomposition:** | No decomposition if stored and handled as prescribed. |
| **Viscosity (dynamic):** | Approx. 17.5 mPa·s at 20 °C (100 1/s) |
| **Explosion hazard:** | Based on chemical structure, no indication of explosive properties. |
| **Fire-promoting properties:** | Based on structural properties, product not classified as oxidising. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

| | |
|---|---|
| **Reactivity:** | No hazardous reactions if stored and handled as prescribed. |
| **Corrosion to metals:** | Corrosive effect on aluminium and mild steel. Corrosion rate > 6.25 mm/year (using 7075-T6 or AZ5GU-T6 aluminium alloys). |

### 10.2. Chemical stability

**Chemical stability:** Stable if stored and handled as prescribed.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** None known if stored and handled as prescribed.

### 10.4. Conditions to avoid

**Conditions to avoid:** See Section 7.

### 10.5. Incompatible materials

**Materials to avoid:** Strong bases. Strong acids. Strong oxidising agents. Aluminium and mild steel (corrosion).

### 10.6. Hazardous decomposition products

**Decomposition products:** None known if stored and handled as prescribed. See Section 5.2 for combustion products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Acute toxicity assessment:**

Of pronounced toxicity after single ingestion. Of moderate toxicity after short-term skin contact. Virtually nontoxic by inhalation. Product has not been tested; the statement has been derived from the properties of the individual components.

| Route | Species | Type | Value | Notes |
|---|---|---|---|---|
| Oral | Human | LD50 | 50 – 200 mg/kg | Literature — basis for Acute Tox. 3 classification |
| Oral | Rat | LD50 | 520 mg/kg | Literature (chlormequat chloride) |
| Dermal | Rabbit | LD50 | 1,250 mg/kg | Literature — Acute Tox. 4 |
| Inhalation (4 h, aerosol) | Rat | LC50 | > 5.2 mg/l | Not classified |

**Skin corrosion/irritation:** Not irritating (rabbit).

**Serious eye damage/irritation:** Not irritating (rabbit).

**Respiratory/skin sensitisation:** No evidence of skin-sensitising potential (guinea pig maximisation test, OECD 406 — non-sensitising).

**Germ cell mutagenicity:** Mutagenicity tests revealed no genotoxic potential.

**Carcinogenicity:** Animal studies gave no indication of a carcinogenic effect.

**Reproductive toxicity:** Animal studies gave no indication of a fertility-impairing effect.

**Developmental toxicity:** Animal studies gave no indication of a developmental toxic effect at doses not toxic to parental animals.

**STOT — single exposure:** No specific target organ toxicity expected after a single exposure.

**STOT — repeated exposure:** The substance may reversibly affect the nervous system, but there are no indications of permanent nerve cell damage.

**Aspiration hazard:** Not expected.

**Other information:** Misuse can be harmful to health.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Assessment:** Harmful to aquatic life with long lasting effects.

**Component data (chlormequat chloride):**

| Organism | Species | Endpoint | Value |
|---|---|---|---|
| Fish | Cyprinus carpio | LC50 (96 h) | > 100 mg/l (OECD 203) |
| Aquatic invertebrates | Daphnia magna | LC50 (96 h) | 31.7 mg/l |
| Aquatic plants | Lemna gibba | EC50 (7 d, growth rate) | 28.0 mg/l |
| Aquatic plants | Lemna gibba | EC10 (7 d) | 0.6 mg/l |
| Fish (chronic) | Oncorhynchus mykiss | NOEC (21 d) | 43.1 mg/l |
| Daphnia (chronic) | Daphnia magna | NOEC (21 d) | 2.44 mg/l |

### 12.2. Persistence and degradability

**Assessment:** Readily biodegradable (according to OECD criteria).

### 12.3. Bioaccumulative potential

**Assessment:** Because of the n-octanol/water distribution coefficient (log Pow −3.47), accumulation in organisms is not to be expected.

### 12.4. Mobility in soil

**Assessment:** Following exposure to soil, the product trickles away and can — dependent on degradation — be transported to deeper soil areas with larger water loads.

### 12.5. Results of PBT and vPvB assessment

**Assessment:** The product does not contain a substance fulfilling PBT or vPvB criteria.

### 12.6. Endocrine disrupting properties

**Assessment:** No components identified as endocrine disruptors under Regulation (EU) 2017/2100 or (EU) 2018/605 at ≥ 0.1%.

### 12.7. Other adverse effects

**Other effects:** The product does not contain substances listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer. Do not discharge product into the environment without control.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Product:** Must be disposed of or incinerated in accordance with local regulations. The UK Environmental Protection (Duty of Care) Regulations and amendments should be noted. This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments.

**Contaminated packaging:** Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

**European Waste Code (indicative):** 02 01 08* — agrochemical waste containing dangerous substances.

## SECTION 14: Transport information

*** CHANGED FROM 2022 SDS:** *Transport section fully aligned with BASF originator. The 2022 SDS quoted UN 1760 (Corrosive only); the correct UN number for this Acute Tox. 3 + Met. Corr. 1 mixture is UN 2922 (Corrosive AND Toxic — Classes 8, 6.1).*

### 14.1. UN number

**ADR / IMDG / IATA / ADN / RID:** UN 2922

### 14.2. UN proper shipping name

**Shipping name:** CORROSIVE LIQUID, TOXIC, N.O.S. (CHLORMEQUAT CHLORIDE)

### 14.3. Transport hazard class(es)

**Classes:** 8, 6.1 — Corrosive substances and Toxic substances

### 14.4. Packing group

**Packing group:** III

### 14.5. Environmental hazards

**Environmentally hazardous:** No

**Marine pollutant (IMDG):** No

### 14.6. Special precautions for user

**Tunnel code (ADR):** E

**IMDG EmS:** F-A, S-B

**IATA/ICAO:** No 'Mark as dangerous for the environment' needed.

**Further information (UK):** This product is subject to the most recent edition of 'The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations' and their amendments.

### 14.7. Maritime transport in bulk according to IMO instruments

**Bulk transport:** Not intended.

## SECTION 15: Regulatory information

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

**GB Plant Protection Products Regulation:** Regulation (EC) No 1107/2009 as retained in GB law. Authorised for professional use in Great Britain under MAPP 21270.

**GB CLP:** Regulation (EC) No 1272/2008 as retained in GB law (UK SI 2019/720 and UK SI 2020/1567). Chlormequat chloride has a harmonised classification in Annex VI (Index 007-003-00-6): Acute Tox. 4 (Oral) H302; Acute Tox. 4 (Dermal) H312. This SDS applies the stricter Acute Tox. 3 (Oral) H301 per CLP Article 5(3) based on human LD50 data — consistent with the BASF originator classification.

**UK REACH:** Regulation (EC) No 1907/2006 as retained in UK law (UK SI 2019/758 and UK SI 2020/1577). Annex XVII list entry #75 applies (restrictions do not apply for the intended use of the product).

**Seveso III / COMAH:** Directive 2012/18/EU — list entry H2 (Acute Tox. 3, Oral). May be subject to the Control of Major Accident Hazards Regulations 2015 (COMAH) if specific threshold tonnages are exceeded.

**COSHH:** The Control of Substances Hazardous to Health Regulations 2002 (as amended) apply to use of this product at work.

### 15.2. Chemical Safety Assessment

**CSA:** No Chemical Safety Assessment has been carried out for the mixture. Advice on product handling can be found in Sections 7 and 8.

## SECTION 16: Other information

### Revision

**This revision:** Revision 3.0 — issued 19/08/2026.

**Supersedes:** First issue dated 11/05/2022 (revision nil). Note: an internal draft revision 2.0 dated 30/07/2026 was prepared against the Nufarm Stabilan 750 originator; that draft is withdrawn and replaced by this revision 3.0, which uses the correct BASF 3C Chlormequat 750 originator baseline.

**Rationale for revision:** Alignment with the confirmed originator: BASF 3C Chlormequat 750 SDS v4.0 (29/06/2022, MAPP 16690). This resolves the difference in classification (Acute Tox. 3 vs Acute Tox. 4), transport (UN 2922 vs UN 1760) and precautionary phrase set that arose from the earlier mistaken use of the Nufarm Stabilan 750 baseline.

**UFI to be assigned:** A Unique Formula Identifier (UFI) must be assigned to the Sigrun formulation via the ECHA/HSE poison-centre notification portal before this SDS is issued externally. The originator BASF UFI is not transferable — Sigrun's own UFI is required.

### Full text of H- and EUH-statements referenced in Sections 2 and 3

**Statements:**
H290: May be corrosive to metals.
H301: Toxic if swallowed.
H302: Harmful if swallowed. (Annex VI harmonised — noted for reference)
H312: Harmful in contact with skin.
H412: Harmful to aquatic life with long lasting effects.
EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

### Abbreviations

**Abbreviations:**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CLP: Classification, Labelling and Packaging Regulation (EC) No 1272/2008.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IMDG: International Maritime Dangerous Goods code.
LD50 / LC50: Lethal Dose / Lethal Concentration, 50%.
MAPP: Ministerially Approved Plant Protection product number.
Met. Corr. 1: Corrosive to metals, Category 1.
NOEC: No Observed Effect Concentration.
PBT / vPvB: Persistent, Bioaccumulative and Toxic / very Persistent and very Bioaccumulative.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.
SL: Soluble concentrate.
UFI: Unique Formula Identifier.
WEL: Workplace Exposure Limit (HSE EH40).

### Data sources

**Sources:** Classification and hazard data derived from the originator BASF 3C Chlormequat 750 Safety Data Sheet (BASF ID no. 30593013/SDS_CPA_GB/EN, version 4.0, revised 29/06/2022, printing date 30/06/2022, GB-en). Substance-level data for chlormequat chloride from Annex VI of Regulation (EC) No 1272/2008 and the REACH registration dossier.

### Legal disclaimer

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