

Helaian Data Keselamatan

Safety data sheet

Mukasurat (Page): 1/29

BASF Helaian Data Keselamatan (BASF Safety data sheet)

Tarikh / Disemak (Date / Revised): 19.04.2023

Produk (Product): **Clio® SC**

Versi (Version): 4.0

(30508850/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print): 10.10.2023

1. Pengenalan bahan kimia dan pembekal

Clio® SC

Kegunaan: produk pelindung tanaman, racun herba

Syarikat:

BASF (Malaysia) Sdn Bhd
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Nombor Telefon: +60 3 7612 1888
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Maklumat kecemasan:

Nombor Kecemasan Kebangsaan
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2. Pengenalan Bahaya

Pengelasan bahan dan campuran:

Pem. Kulit 1

Pemb. 1B (bayi belum lahir)

Akuatik Akut 1

Akuatik Kronik 1

Bagi pengelasan yang tidak ditulis dengan penuh dalam bahagian ini, teks lengkap boleh didapati di bahagian 16.

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Unsur label dan pernyataan berjaga-jaga:

Piktogram:



Kata Isyarat:

bahaya

Pernyataan Bahaya:

H317	Boleh menyebabkan tindak balas kulit alergi.
H360D	Boleh menjejaskan bayi belum lahir.
H400	Sangat toksik kepada hidupan akuatik.
H410	Sangat toksik kepada hidupan akuatik dengan kesan yang berpanjangan.
EUH401	Untuk mengelakkan risiko kepada kesihatan manusia dan alam sekitar, patuhi arahan semasa menggunakan bahan.

Pernyataan berjaga-jaga:

P101	Jika nasihat perubatan diperlukan, dapatkan bekas atau label produk.
P102	Jauhkan daripada kanak-kanak.
P103	Baca label sebelum menggunakan produk.

Pernyataan Berjaga-jaga (Pencegahan):

P280	Pakai sarung tangan/pakaian pelindung/pelindung mata.
P261	Elak daripada menghirup kabus atau wap atau semburan.
P201	Dapatkan arahan khas sebelum menggunakan produk.
P202	Jangan kendalikan sehingga semua langkah keselamatan telah dibaca dan difahami.
P272	Pakaian kerja yang tercemar tidak boleh dibawa keluar dari tempat kerja.

Pernyataan Berjaga-jaga (Tindak Balas):

P333 + P313	JIKA TERKENA KULIT: Basuh dengan sabun dan air yang banyak. Jika berlaku kerengsaan kulit atau ruam: Dapatkan nasihat/rawatan perubatan.
P308 + P313	Jika terdedah kepada bahan atau terkena bahan: Dapatkan nasihat/rawatan perubatan.
P391	Pungut tumpahan.
P362 + P364	Tanggalkan pakaian yang tercemar dan basuh sebelum menggunakannya semula.

Pernyataan Berjaga-jaga (Penyimpanan):

P405	Simpan di tempat berkunci.
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Pernyataan Berjaga-jaga (Pelupusan):

P501	Buangkan kandungan dan bekas ke tempat pengumpulan bahan sisa merbahaya atau khas.
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Bahaya lain yang tidak menyebabkan pengelasan:

Lihat seksyen 12 - Keputusan PBT dan Penilaian vPvB

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Jika berkenaan, maklumat yang diberikan dalam bahagian ini tentang bahaya lain tidak menyebabkan pengelasan tetapi mungkin menyumbang kepada bahaya bahan atau campuran secara keseluruhan.

Produk tidak mengandungi bahan melebihi had undang-undang yang termasuk di dalam senarai yang disediakan mengikut Artikel 59(1) Peraturan (EC) No. 1907/2006 kerana mengandungi ciri-ciri gangguan endokrin atau telah dikenalpasti untuk mengandungi ciri-ciri gangguan endokrin mengikut kriteria yang ditetapkan dalam Peraturan Wakilan Suruhanjaya (EU) 2017/2100 atau Peraturan Suruhanjaya (EU) 2018/605.

3. Komposisi dan Maklumat Mengenai Ramuan Bahan Kimia

Keadaan kimia

produk pelindung tanaman, racun herba, pekatan ampaian (SC)

Ramuan berbahaya

Topramezone techn.

Kandungan (berat/berat): 29.7 %	Pemb. 1B (unborn child)
Nombor CAS: 210631-68-8	Akuatik Akut 1
	Akuatik Kronik 1
	Faktor-M akut: 1
	Faktor-M kronik: 100

Benzenesulfonic acid, hydroxy-, polymer with formaldehyde, phenol and urea, sodium salt

Kandungan (berat/berat): < 3 %	Kros./Kreng. Mata 2
Nombor CAS: 102980-04-1	Akuatik Kronik 3

2-methyl-2H-isothiazol-3-one

Kandungan (berat/berat): < 0.01 %	Toks. Akut 2 (Penyedutan - habuk)
Nombor CAS: 2682-20-4	Toks. Akut 3 (oral)
	Toks. Akut 3 (dermis)
	Kks./Kreng. Kulit 1B
	Kros./Kreng. Mata 1
	Pem. Kulit 1A
	Akuatik Akut 1
	Akuatik Kronik 1
	Faktor-M akut: 10
	Faktor-M kronik: 1

propan-1,2-diol

Kandungan (berat/berat): < 10 %
Nombor CAS: 57-55-6

Bagi pengelasan yang tidak ditulis dengan penuh dalam bahagian ini, teks lengkap boleh didapati di bahagian 16.

4. Langkah-Langkah Pertolongan Cemas

Nasihat am:

Kakitangan bantuan kecemasan hendaklah memberikan perhatian kepada keselamatan mereka sendiri. Jika pesakit mungkin akan tidak sedarkan diri, pastikan pesakit dalam keadaan mengiring (kedudukan pemulihan) dan pindahkan pesakit. Segera tanggalkan pakaian yang tercemar.

Jika tersedut:

Tenangkan pesakit, alihkan ke tempat berudara bersih, dapatkan rawatan perubatan.

Apabila terkena kulit:

Segera basuh bersih-bersih dengan sabun dan air, dapatkan rawatan perubatan.

Apabila terkena mata:

Basuh mata yang terkena produk selama sekurang-kurangnya 15 minit di bawah aliran air sambil membuka mata.

Apabila tertelan:

Segera berkumur, kemudian minum 200-300 ml air, dapatkan rawatan perubatan.

Nota kepada doktor:

Gejala: Maklumat, iaitu maklumat tambahan mengenai simptom dan kesan boleh termasuk di dalam fasa palabelan GHS yang tersedia ada dalam Seksyen 2 dan di dalam penaksiran Toksikologi yang tersedia ada dalam Seksyen 11., Simptom dan/atau kesan tidak diketahui setakat ini

Nota kepada doktor:

Rawatan: Rawat mengikut gejala (nyahcemar, fungsi utama), tiada penawar khusus diketahui.

5. Langkah-Langkah Pemadaman Kebakaran

Bahan pemadam yang sesuai:

semburan air, busa, serbuk kering, karbon dioksida

Alat memadam yang tidak sesuai untuk tujuan keselamatan:

pancutan air

Bahaya tertentu:

karbon monoksida, karbon dioksida, hidrogen klorida, nitrogen oksida, sulfur oksida, sebatian halogen

Bahan/kumpulan bahan yang dinyatakan boleh dibebaskan jika berlaku kebakaran.

Peralatan perlindungan khusus:

Gunakan alat pernafasan serba lengkap dan pakaian pelindung kimia.

Maklumat lanjut:

Dalam hal kebakaran dan/atau letupan jangan menyedut wasap. Pastikan bekas sejuk dengan menyembur air pada bekas jika terdedah kepada kebakaran. Kumpul air pemadam api yang tercemar secara berasingan, jangan biarkan ia mengalir ke dalam sistem pembetung atau efluen. Lupuskan sisa kebakaran dan air pemadam api yang tercemar menurut peraturan rasmi.

6. Langkah-Langkah Pelepasan Tidak Sengaja

Perlindungan diri, kelengkapan pelindung dan tatacara kecemasan:

Jangan bernafaskan wap/semburan. Gunakan pakaian pelindung diri. Elakkan dari bersentuhan dengan kulit, mata dan pakaian.

Langkah berjaga-jaga untuk alam sekitar:

Jangan lepaskan ke dalam parit/air permukaan/air tanah. Jangan lepaskan ke dalam subtanah/tanah.

Kaedah pembersihan atau penyerapan:

Bagi sejumlah kecil: Kutip dengan bahan penyerap yang sesuai (contohnya pasir, habuk gergaji, pengikat serba guna, kieselguhr).

Bagi sejumlah besar: Bina benteng tumpahan. Pam produk.

Lupuskan bahan yang diserap mengikut peraturan. Kumpul sisa ke dalam bekas yang sesuai, yang boleh dilabel dan ditutup ketat. Basuh bersih-bersih lantai dan objek yang tercemar dengan air dan bahan pencuci, patuhi peraturan alam sekitar. Pakai peralatan pelindung yang sesuai.

7. Pengendalian dan Penyimpanan

Pengendalian

Tiada langkah khusus diperlukan dengan syarat produk disimpan dan digunakan dengan betul.

Pastikan pengalihudaraan menyeluruh di kawasan simpanan dan di tempat kerja. Jangan makan, minum atau merokok apabila menggunakannya. Tangan dan/atau muka hendaklah dibasuh sebelum rehat dan setelah tamat waktu bekerja.

Perlindungan terhadap kebakaran dan letupan:

Tiada langkah berjaga-jaga yang khusus diperlukan. Bahan/produk tidak mudah terbakar. Produk tidak meletup.

Penyimpanan

Asingkan daripada makanan dan makanan haiwan.

Maklumat lanjut tentang keadaan penyimpanan: Jauhkan daripada panas. Lindungi daripada pancaran terus cahaya matahari.

Kestabilan penyimpanan:

Tempoh penyimpanan: 60 bulan

Lindungi daripada suhu di bawah : 0 °C

Produk boleh menghablur di bawah had suhu tersebut.

Lindungi daripada suhu melebihi : 40 °C

Perubahan ciri produk boleh berlaku jika bahan/produk disimpan melebihi suhu yang dinyatakan bagi tempoh yang panjang.

8. Kawalan pendedahan dan perlindungan diri

Komponen dengan parameter kawalan tempat kerja

Tiada had pendedahan pekerjaan yang diketahui.

Peralatan perlindungan peribadi

Perlindungan pernafasan:

Perlindungan pernafasan yang sesuai bagi kepekatan yang rendah atau kesan jangka pendek:
Penapis gabungan bagi gas/wap sebatian organik, tak organik, asid tak organik, alkali dan zarah toksik (contohnya EN 14387 Jenis ABEK-P3)

Perlindungan tangan:

Sarung tangan kalis kimia yang sesuai (EN ISO 374-1) jika terkena secara langsung yang berpanjangan (Disyorkan: Indeks pelindung 6, sama dengan masa penelapan > 480 minit mengikut EN ISO 374-1): Misalnya getah nitril (0.4 mm), getah kloroprena (0.5 mm), polivinilklorida (0.7 mm) dan lainnya.

Perlindungan mata:

Kaca mata keselamatan dengan pelindung sisi (gogal berbingkai) (contohnya EN 166)

Perlindungan badan:

Perlindungan badan mesti dipilih bergantung kepada aktiviti dan pendedahan, contohnya apron, kasut perlindungan, pakaian perlindungan bahan kimia (Berdasarkan DIN-EN 465)

Langkah kebersihan dan keselamatan am:

Penyataan tentang kelengkapan pelindung diri dalam arahan penggunaan terpakai untuk penggunaan agen pelindung pertanian bagi pembungkusan terakhir. Disyorkan memakai pakaian kerja yang tertutup. Simpan pakaian kerja secara berasingan. Jauhkan daripada makanan, minuman dan barang makanan haiwan.

9. Sifat Fizikal dan Kimia

Bentuk:	cecair
Warna:	putih pudar
Bau:	wangi
Ambang bau:	Tidak ditentukan disebabkan oleh bahaya kesihatan yang mungkin melalui penyedutan.
nilai pH:	dianggarkan 2.5 - 4.5 (Air D Piawai CIPAC., 1 %(m), 20 °C)
suhu penghabluran:	dianggarkan -4 °C
takat didih:	dianggarkan 100 °C
Takat kilat:	Tiada takat kilat- Ukuran dibuat sehingga ke takat didih.
Tahap penyejatan:	Tidak boleh digunakan
Kemudahbakaran (pepejal/gas):	Kajian tidak perlu dijalankan.

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Had letupan bawah:	Hasil pengalaman kami dengan produk ini dan pengetahuan kami mengenai komposisinya kami menjangka tidak terdapat bahaya selagi produk ini digunakan dengan cara yang sesuai dan menurut penggunaan yang dicadangkan.	
Had letupan atas:	Hasil pengalaman kami dengan produk ini dan pengetahuan kami mengenai komposisinya kami menjangka tidak terdapat bahaya selagi produk ini digunakan dengan cara yang sesuai dan menurut penggunaan yang dicadangkan.	
Suhu pencucuhan:	425 °C	(Arahan 92/69/EEC, A.15)
Penguraian terma:	210 °C , 330 kJ/kg	
Bahaya letupan:	Bahan tidak boleh mengurai sendiri menurut peraturan-peraturan pengangkutan UN, kelas 4.1	
Sifat yang menggalakkan kebakaran:	tidak mudah meletup	
Tekanan Wap:	dianggarkan 23.3 hPa (20 °C) Maklumat terpakai kepada pelarut.	
Kepekatan:	dianggarkan 1.12 g/cm ³ (20 °C)	
Ketumpatan wap relatif (udara):	Tidak boleh digunakan	
Keterlarutan dalam air:	mudah terserak	
Pekali petakan n-oktanol/air (log Pow):	Tidak boleh digunakan	
Kelikatan, dinamik:	dianggarkan 78 mPa.s (20 °C, 100 1/s)	

10. Kestabilan dan Kereaktifan

Keadaan yang perlu dielakkan:

Lihat MSDS bahagian 7 - Pengendalian dan Penyimpanan.

Penguraian terma: 210 °C, 330 kJ/kg

Penguraian terma: Bahan tidak boleh mengurai sendiri menurut peraturan-peraturan pengangkutan UN, kelas 4.1

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Bahan yang perlu dielakkan:
asid kuat, bes kuat, agen pengoksida yang kuat

Tindak balas berbahaya:
Tiada produk penguraian yang berbahaya jika disimpan dan dikendalikan seperti yang ditetapkan/dinyatakan.

Bahan penguraian berbahaya:
Tiada produk penguraian yang berbahaya jika disimpan dan dikendalikan seperti yang ditetapkan/dinyatakan.

Kereaktifan:
Tiada produk penguraian yang berbahaya jika disimpan dan dikendalikan seperti yang ditetapkan/dinyatakan.

Kestabilan kimia:
Produk adalah stabil jika disimpan dan dikendalikan sebagaimana

11. Maklumat Toksikologi

Ketoksikan akut

Penilaian ketoksikan akut:
Tidak toksik selepas sekali ditelan. Tidak toksik jika tersedut. Tidak toksik selepas sekali terkena kulit
Produk belum diuji. Penyataan diambil daripada bahan/produk yang mempunyai struktur dan komposisi yang sama.

Data eksperimen/dikira:
LD50 tikus (melalui mulut): > 2,000 mg/kg (Garis panduan OECD 423)
Tiada kematian diperhatikan

LC50 tikus (melalui penyedutan): > 5.8 mg/l 4 h (Garis panduan OECD 403)
Tiada kematian diperhatikan Aerosol diuji

LD50 tikus (dermal): > 4,000 mg/kg (Garis panduan OECD 402)
Tiada kematian diperhatikan

Kerengsaan

Penilaian kesan merengsa:
Tidak merengsakan kulit. Tidak merengsakan mata. Produk belum diuji. Penyataan diambil daripada bahan/produk yang mempunyai struktur dan komposisi yang sama.

Data eksperimen/dikira:
Kakisan/Kerengsaan kulit arnab: (Garis panduan OECD 404)

Kerosakkan/kerengsaan mata yang serius arnab: (Garis panduan OECD 405)

Pemekaan pernafasan/kulit

Penilaian pemekaan:
Pemekaan selepas sentuhan kulit yang berulang mungkin berlaku. Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

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Maklumat tentang : 2-methyl-2H-isothiazol-3-one

Data eksperimen/dikira:

Ujian Buehler marmut: pemekaan kulit (Garis panduan OECD 406)

Kemutagenan sel germa

Penilaian kemutagenan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen. Ujian kemutagenan membuktikan tiada potensi genotoksik .

Kekarsinogenan

Penilaian kekarsinogenan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : topramezone (ISO); Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)-

Penilaian kekarsinogenan:

Dalam kajian jangka panjang terhadap tikus, bahan mengakibatkan tumor tiroid. Kesan disebabkan oleh mekanisme khusus haiwan yang tidak memberikan kesan kepada manusia. Dalam kajian jangka panjang ke atas mencit yang bahan telah diberikan melalui makanan, kesan karsinogen tidak diperhatikan.

Ketoksikan pembiakan

Penilaian ketoksikan pembiakan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen. Keputusan kajian haiwan tidak menunjukkan kesan gangguan kesuburan.

Ketoksikan perkembangan

Penilaian keteratogenan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : topramezone (ISO); Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)-

Penilaian keteratogenan:

Dalam uji kaji ke atas haiwan, bahan menunjukkan perkembangan kesan

Ketoksikan khusus organ sasaran (sekali pendedahan):

Penilaian sekali STOT:

Berdasarkan maklumat yang ada, ketoksikan organ sasaran yang khusus adalah tidak dijangka selepas sekali pendedahan.

Catatan: Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Ketoksikan dos berulang dan Ketoksikan organ sasaran tertentu (pededahan berulang)

Penilaian ketoksikan dos berulang:
Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : topramezone (ISO); Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)-

Penilaian ketoksikan dos berulang:

Kesan adaptif diperhatikan selepas pendedahan berulang-ulang didalam ujian haiwan.

Bahaya penyedutan

Tiada bahaya penyedutan dijangka.
Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat lain yang berkaitan dengan ketoksikan

Penyalahgunaan boleh memudaratkan kesihatan.

12. Maklumat Ekologi

Keekotoksikan

Penilaian ketoksikan akuatik:

Sangat toksik kepada hidupan akuatik dengan kesan yang berpanjangan.

Produk belum diuji. Penyataan diambil daripada bahan/produk yang mempunyai struktur dan komposisi yang sama.

Ketoksikan kepada ikan:

LC50 (96 h) 8.71 mg/l, *Oncorhynchus mykiss*

Invertebrat air:

EC50 (48 h) 12.1 mg/l, *Daphnia magna*

Tumbuhan akuatik:

EC50 (7 hari) > 0.064 mg/l (kadar pertumbuhan), *Lemna gibba* (OECD guideline 221)

EC50 (7 hari) 0.0008 mg/l (kadar pertumbuhan), *Lemna gibba* (OECD guideline 221)

Ketoksikan kronik kepada invertebrata akuatik:

Tiada kesan kepekatan yang diperhatikan (35 hari), 0.12 mg/l, *Mysidopsis bahia*

Mobiliti

Penilaian pengangkutan di antara bahagian di persekitaran:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : topramezone (ISO); Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)-

Penilaian pengangkutan di antara bahagian di persekitaran:

Selepas terdedah kepada tanah, produk ini bergerak dan mungkin - bergantung kepada degradasi - menyerap masuk kedalam tanah yang mengandungi kandungan air yang banyak

Keterusan dan boleh keterdegradasikan

Penilaian biodegradasi dan penyingkiran (H₂O):
Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : topramezone (ISO); Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)-

Penilaian biodegradasi dan penyingkiran (H₂O):
Tidak mudah terbiodegradasikan (oleh kriteria OECD).

Potensi Biotumpukan

Penilaian potensi bioakumulasi:
Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : topramezone (ISO); Methanone, [3-(4,5-dihydro-3-isoxazolyl)-2-methyl-4-(methylsulfonyl)phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)-

Potensi Biotumpukan:
Faktor Kebiopekatan: 0.69 (42 hari), *Lepomis macrochirus* ()
Tidak terakumulasi secara ketara dalam organisma.

Maklumat tambahan

Nasihat ekotoksikologi lain:
Jangan lepaskan produk ke persekitaran tanpa kawalan.

13. Maklumat Pelupusan

Mesti dihantar ke loji pembakaran yang sesuai, mematuhi peraturan

Pembungkusan tercemar:
Bungkusan yang tercemar hendaklah dikosongkan sejauh yang boleh dan dilupuskan dengan cara yang sama melupuskan bahan/produk.

14. Maklumat Pengangkutan**Pengangkutan domestik:**

Kelas bahaya:	9
Kumpulan pembungkusan:	III
Nombor-ID:	UN 3082
Label Bahaya:	9, EHSM
Nama penghantaran yang betul:	BAHAN YANG MEMBAHAYAKAN ALAM SEKITAR, CECAIR, N.O.S (mengandungi TOPRAMEZONE)

Maklumat lanjut

Kod Hazchem:3Z

Nombor IERG:47

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Produk (Product): **Clio® SC**

Versi (Version): 4.0

(30508850/SDS_CPA_MY/MS)

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Pengangkutan laut**IMDG**

Kelas bahaya:	9
Kumpulan pembungkusan:	III
Nombor-ID:	UN 3082
Label Bahaya:	9, EHSM
Bahan pencemar laut:	YA
Nama penghantaran yang betul:	BAHAN YANG MEMBAHAYAKAN ALAM SEKITAR, CECAIR, N.O.S (mengandungi TOPRAMEZONE)

Pengangkutan udara**IATA/ICAO**

Kelas bahaya:	9
Kumpulan pembungkusan:	III
Nombor-ID:	UN 3082
Label Bahaya:	9, EHSM
Nama penghantaran yang betul:	BAHAN YANG MEMBAHAYAKAN ALAM SEKITAR, CECAIR, N.O.S (mengandungi TOPRAMEZONE)

Pengangkutan secara pukal menurut Lampiran II MARPOL dan IBC

Peraturan:	Tidak dinilai
Penghantaran yang diluluskan:	Tidak dinilai
Nama pencemaran:	Tidak dinilai
Kategori pencemaran:	Tidak dinilai
Jenis Kapal:	Tidak dinilai

Maklumat lanjut

Peraturan-peraturan berikut digunapakai untuk produk yang mengandungi kuantiti bersih 5L atau kurang daripada itu

ADR, RID, AND: Peraturan Khas 375;

JT/T617.3;

IMDG: 2.10.2.7;

IATA: A197;

TDG: Peraturan Khas 99(2);

49CFR: §171.4 (c) (2).

15. Maklumat Pengawalseliaan

Peraturan-Peraturan Keselamatan dan Kesihatan Pekerjaan (Pengelasan, Pelabelan dan Helaian Data Keselamatan Bahan kimia Berbahaya) 2013

Akta OSHA 1994 dan peraturan berkaitan

Akta Kualiti Alam Sekeliling 1974

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Maklumat tentang peraturan-peraturan tidak meliputi kesemuanya. Peraturan-peraturan lain mungkin dikenakan kepada bahan ini.

Peraturan lain

Untuk mengelakkan risiko kepada manusia dan persekitaran, patuhi arahan penggunaan.

16. Maklumat lain

Tarikh Penyediaan / Tarikh Penyemakan: 19.04.2023

Sumber Maklumat dan Rujukan :

SDS ini disediakan dengan menggunakan data dan maklumat tersimpan di dalam sistem berasaskan IT dalaman kami dan dibekalkan oleh pembekal perkhidmatan syarikat kami.

Singkatan Petunjuk:

ATE - Anggaran Ketoksikan Akut

GHS - Sistem Terharmoni Global

IATA / ICAO - Persatuan Pengangkutan Udara Antarabangsa / Organisasi Penerbangan Awam Antarabangsa

IBC - Kontena Pukul Pertengahan

IMDG - Barangan Merbahaya Kelautan Antarabangsa

LC - Kepekatan Maut

LD - Dos Maut

OECD - Organisasi Untuk Kerjasama dan Pembangunan Ekonomi

OEL - Had Pendedahan Pekerjaan

OSHA - Akta Keselamatan dan Kesihatan Pekerjaan

STOT - Ketoksikan Organ Sasaran Khusus

Teks penuh pengelasan, simbol bahaya dan pernyataan bahaya, jika dinyatakan dalam seksyen 2 atau 3:

Bhn. Ltp. T. Stab.	Bahan letup tidak stabil
Bhn. Ltp. 1.1	Bahan letup divisyen 1.1
Bhn. Ltp. 1.2	Bahan letup divisyen 1.2
Bhn. Ltp. 1.3	Bahan letup divisyen 1.3
Bhn. Ltp. 1.4	Bahan letup divisyen 1.4
Bhn. Ltp. 1.5	Bahan letup divisyen 1.5
Bhn. Ltp. 1.6	Bahan letup divisyen 1.6
Gas M. Bkr 1	Gas mudah terbakar kategori 1
Gas M. Bkr 2	Gas mudah terbakar kategori 2
Aerosol M. Bkr1	Aerosol mudah terbakar kategori 1
Aerosol M. Bkr 2	Aerosol mudah terbakar kategori 2
Cec. M. Bkr 1	Cecair mudah terbakar kategori 1
Cec. M. Bkr 2	Cecair mudah terbakar kategori 2
Cec. M. Bkr 3	Cecair mudah terbakar kategori 3
Pep. M. Bkr 1	Pepejal mudah terbakar kategori 1
Pep. M. Bkr 2	Pepejal mudah terbakar kategori 2
Gas Oks. 1	Gas mengoksida kategori 1
Cec. Oks. 1	Cecair mengoksida kategori 1
Cec. Oks. 2	Cecair mengoksida kategori 2
Cec. Oks. 3	Cecair mengoksida kategori 3
Pep. Oks. 1	Pepejal mengoksida kategori 1
Pep. Oks. 2	Pepejal mengoksida kategori 2

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Pep. Oks. 3	Pepejal mengoksida kategori 3
Gas Tkn.	Gas di bawah tekanan
Swareak. A	Bahan kimia swareaktif jenis A
Swareak. B	Bahan kimia swareaktif jenis B
Swareak. CD	Bahan kimia swareaktif jenis C dan D
Swareak. EF	Bahan kimia swareaktif jenis E dan F
Swareak. G	Bahan kimia swareaktif jenis G
Cec. Pir. 1	Cecair piroforik kategori 1
Pep. Pir. 1	Pepejal piroforik kategori 1
Swapanas. 1	Bahan kimia swapanasan kategori 1
Swapanas. 2	Bahan kimia swapanasan kategori 2
Tdk. Bls. Air 1	Bahan kimia yang, jika terkena air, membebaskan gas mudah terbakar kategori 1
Tdk. Bls. Air 2	Bahan kimia yang, jika terkena air, membebaskan gas mudah terbakar kategori 2
Tdk. Bls. Air 3	Bahan kimia yang, jika terkena air, membebaskan gas mudah terbakar kategori 3
Peroks. Org. A	Peroksida organik jenis A
Peroks. Org. B	Peroksida organik jenis B
Peroks. Org. CD	Peroksida organik jenis C and D
Peroks. Org. EF	Peroksida organik jenis E and F
Peroks. Org. G	Peroksida organik jenis G
Kakis. Log. 1	Mengakis logam kategori 1
Toks. Akut 1	Ketoksikan akut kategori 1
Toks. Akut 2	Ketoksikan akut kategori 2
Toks. Akut 3	Ketoksikan akut kategori 3
Toks. Akut 4	Ketoksikan akut kategori 4
Kks. Kulit 1A	Kakisan atau kerengsaan kulit kategori 1A
Kks. Kulit 1B	Kakisan atau kerengsaan kulit kategori 1B
Kks. Kulit 1C	Kakisan atau kerengsaan kulit kategori 1C
Kreng. Kulit 2	Kerosakan atau kerengsaan kulit kategori 2
Kros. Mata 1	Kerosakan mata atau kerengsaan mata yang serius kategori 1
Kreng. Mata 2	Kerosakan mata atau kerengsaan mata yang serius kategori 2
Pem. Naf. 1	Pemekaan pernafasan kategori 1
Pem. Kulit 1	Pemekaan kulit kategori 1
Muta. 1A	Kemutagenan sel germa kategori 1A
Muta. 1B	Kemutagenan sel germa kategori 1B
Muta. 2	Kemutagenan sel germa kategori 2
Kars. 1A	Kekarsinogenan kategori 1A
Kars. 1B	Kekarsinogenan kategori 1B
Kars. 2	Kekarsinogenan kategori 2
Pemb. 1A	Ketoksikan pembiakan kategori 1A
Pemb. 1B	Ketoksikan pembiakan kategori 1B
Pemb. 2	Ketoksikan pembiakan kategori 2
Laktasi	Kesan ke atas atau melalui penyusuan
STOT SE 1	Ketoksikan organ sasaran khusus - pendedahan tunggal kategori 1
STOT SE 2	Ketoksikan organ sasaran khusus - pendedahan tunggal kategori 2
STOT SE 3	Ketoksikan organ sasaran khusus - pendedahan tunggal kategori 3
STOT RE 1	Ketoksikan organ sasaran khusus - pendedahan berulang kategori 1
STOT RE 2	Ketoksikan organ sasaran khusus - pendedahan berulang kategori 2
Bhy. Asp.	Bahaya aspirasi kategori 1
Akuatik Akut 1	Berbahaya kepada persekitaran akuatik – bahaya akut kategori 1
Akuatik Kronik 1	Berbahaya kepada persekitaran akuatik – bahaya kronik kategori 1
Akuatik Kronik 2	Berbahaya kepada persekitaran akuatik – bahaya kronik kategori 2

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Akuatik Kronik 3

Berbahaya kepada persekitaran akuatik – bahaya kronik kategori 3

Akuatik Kronik 4

Berbahaya kepada persekitaran akuatik – bahaya kronik kategori 4

Ozon

Berbahaya bagi lapisan ozon kategori 1

Garis menegak pada margin sebelah kiri tangan menunjukkan pindaan dari versi sebelumnya.

Data yang terdapat dalam risalah data keselamatan ini adalah berdasarkan pengetahuan dan pengalaman kami, dan menerangkan tentang produk yang berkaitan dengan keperluan keselamatan sahaja. Data tidak menyatakan ciri produk (spesifikasi produk). Data dalam risalah data keselamatan ini juga tidak menyatakan apa-apa ciri khusus atau kesesuaian produk yang dipersetujui untuk apa-apa tujuan tertentu. Penerima produk bertanggungjawab untuk memastikan bahawa apa-apa hak pemilikan serta undang-undang dan perundangan sedia ada dipatuhi.

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1. Identification of the chemical and of the supplier

Clio® SC

Use: crop protection product, herbicide

Company:

BASF (Malaysia) Sdn Bhd
Lot 19.02 Level 19, 1 Powerhouse
No 1 Persiaran Bandar Utama
47800 Petaling Jaya
Selangor D.E, MALAYSIA
Telephone: +60 3 7612 1888
Telefax number: +60 3 7612 1777

Emergency information:

National emergency number:

+603 7612 1999

International emergency number:

Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:

Skin Sens. 1

Repr. 1B (unborn child)

Aquatic Acute 1

Aquatic Chronic 1

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements and precautionary statement:

Pictogram:



Signal Word:

Danger

Hazard Statement:

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H317	May cause an allergic skin reaction.
H360D	May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P280	Wear protective gloves/clothing/eye protection.
P261	Avoid breathing mist or vapour or spray.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P308 + P313	IF exposed or concerned: Get medical attention.
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P405	Store locked up.
------	------------------

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
------	---

Other hazards which do not result in classification:

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

3. Composition/information on ingredients

Chemical nature

crop protection product, herbicide, suspension concentrate (SC)

Hazardous ingredients

Topramezone

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Content (W/W): 29.7 %
CAS Number: 210631-68-8Repr. 1B (unborn child)
Aquatic Acute 1
Aquatic Chronic 1
M-factor acute: 1
M-factor chronic: 100

Benzenesulfonic acid, hydroxy-, polymer with formaldehyde, phenol and urea, sodium salt

Content (W/W): < 3 %
CAS Number: 102980-04-1Eye Dam./Irrit. 2
Aquatic Chronic 3

2-methyl-2H-isothiazol-3-one

Content (W/W): < 0.01 %
CAS Number: 2682-20-4Acute Tox. 2 (Inhalation - dust)
Acute Tox. 3 (oral)
Acute Tox. 3 (dermal)
Skin Corr./Irrit. 1B
Eye Dam./Irrit. 1
Skin Sens. 1A
Aquatic Acute 1
Aquatic Chronic 1
M-factor acute: 10
M-factor chronic: 1

propane-1,2-diol

Content (W/W): < 10 %
CAS Number: 57-55-6

For the classifications not written out in full in this section the full text can be found in section 16.

4. First-Aid Measures

General advice:

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.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

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

On ingestion:

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

Note to physician:

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Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Note to physician:

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

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

carbon monoxide, carbon dioxide, hydrogen chloride, nitrogen oxides, sulfur oxides, halogenated compounds

The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

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

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

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

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:

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

For large amounts: Dike spillage. Pump off product.

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

7. Handling and Storage

Handling

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.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Storage

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Storage stability:

Storage duration: 60 Months

Protect from temperatures below: 0 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure controls and personal protection

Components with occupational exposure limits

No occupational exposure limits known.

Personal protective equipment

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 (e. g. EN 14387 Type ABEK-P3)

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

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General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid
Colour:	off-white
Odour:	aromatic
Odour threshold:	Not determined due to potential health hazard by inhalation.
pH value:	approx. 2.5 - 4.5 (CIPAC standard water D, 1 %(m), 20 °C)
crystallization temperature:	approx. -4 °C
Boiling point:	approx. 100 °C
Flash point:	No flash point - Measurement made up to the boiling point.
Evaporation rate:	not applicable
Flammability (solid/gas):	Study does not need to be conducted.
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Ignition temperature:	425 °C (Directive 92/69/EEC, A.15)
Thermal decomposition:	210 °C , 330 kJ/kg
Explosion hazard:	Not a substance liable to self- decomposition according to UN transport regulations, class 4.1. not explosive
Fire promoting properties:	not fire-propagating

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Vapour pressure: approx. 23.3 hPa
(20 °C)
Information applies to the solvent.

Density: approx. 1.12 g/cm³
(20 °C)

Relative vapour density (air):
not applicable

Solubility in water: dispersible
Partitioning coefficient n-octanol/water (log Pow):
not applicable

Viscosity, dynamic: approx. 78 mPa.s
(20 °C, 100 1/s)

10. Stability and Reactivity

Conditions to avoid:
See SDS section 7 - Handling and storage.

Thermal decomposition: 210 °C, 330 kJ/kg

Thermal decomposition: Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

Reactivity:
No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

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LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

LC50 rat (by inhalation): > 5.8 mg/l 4 h (OECD Guideline 403)

No mortality was observed. An aerosol was tested.

LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

Skin corrosion/irritation rabbit: (OECD Guideline 404)

Serious eye damage/irritation rabbit: (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 2-methyl-2H-isothiazol-3-one

Experimental/calculated data:

Buehler test guinea pig: skin sensitizing (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Assessment of carcinogenicity:

In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Assessment of teratogenicity:

The substance caused malformations/developmental toxicity in laboratory animals.

Specific target organ toxicity (single exposure):

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Assessment of repeated dose toxicity:

Adaptive effects were observed after repeated exposure in animal studies.

Aspiration hazard

No aspiration hazard expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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Toxicity to fish:

LC50 (96 h) 8.71 mg/l, *Oncorhynchus mykiss*

Aquatic invertebrates:

EC50 (48 h) 12.1 mg/l, *Daphnia magna*

Aquatic plants:

EC50 (7 d) > 0.064 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

EC50 (7 d) 0.0008 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (35 d), 0.12 mg/l, *Mysidopsis bahia*

Mobility

Assessment transport between environmental compartments:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Assessment transport between environmental compartments:

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Bioaccumulation potential:

Bioconcentration factor: 0.69 (42 d), *Lepomis macrochirus* (OPPTS 850.1730 (EPA Guideline))

Does not significantly accumulate in organisms.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

BASF Helaian Data Keselamatan (BASF Safety data sheet)

Tarikh / Disemak (Date / Revised): 19.04.2023

Produk (Product): **Clio® SC**

Versi (Version): 4.0

(30508850/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print): 10.10.2023

13. Disposal Information

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:

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

14. Transportation Information

Domestic transport:

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHS
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TOPRAMEZONE)

Further information

Hazchem Code:3Z

IERG Number:47

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHS
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TOPRAMEZONE)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHS
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains TOPRAMEZONE)

Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation: Not evaluated

BASF Helaian Data Keselamatan (BASF Safety data sheet)

Tarikh / Disemak (Date / Revised): 19.04.2023

Produk (Product): **Clio® SC**

Versi (Version): 4.0

(30508850/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print): 10.10.2023

Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013
OSHA 1994 and relevant regulations
Environmental Quality Act, 1974

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Other regulations

To avoid risks to man and the environment, comply with the instructions for use.

16. Other Information

Date of Preparation / Date of Revision: 19.04.2023

Information Source and References:

This SDS is prepared using data and information saved in our internal IT-based system and supplied by our company's service providers.

Key Abbreviations:

ATE - Acute Toxicity Estimates

GHS - Globally Harmonized System

IATA / ICAO - International Air Transport Association / International Civil Aviation Organization

IBC - Intermediate Bulk Container

IMDG - International Maritime Dangerous Goods

LC - Lethal Concentration

LD - Lethal Dose

OECD - Organisation for Economic Co-operation and Development

OEL - Occupational Exposure Limit

OSHA - Occupational Safety and Health Act

STOT - Specific Target Organ Toxicity

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Unst. Expl.	Unstable explosives
Expl. 1.1	Explosives division 1.1
Expl. 1.2	Explosives division 1.2
Expl. 1.3	Explosives division 1.3
Expl. 1.4	Explosives division 1.4
Expl. 1.5	Explosives division 1.5
Expl. 1.6	Explosives division 1.6
Flam. Gas 1	Flammable gases category 1
Flam. Gas 2	Flammable gases category 2
Flam. Aerosol 1	Flammable aerosols category 1
Flam. Aerosol 2	Flammable aerosols category 2
Flam. Liq. 1	Flammable liquids category 1
Flam. Liq. 2	Flammable liquids category 2
Flam. Liq. 3	Flammable liquids category 3
Flam. Sol. 1	Flammable solids category 1
Flam. Sol. 2	Flammable solids category 2
Ox. Gas 1	Oxidizing gases category 1
Ox. Liq. 1	Oxidizing liquids category 1
Ox. Liq. 2	Oxidizing liquids category 2
Ox. Liq. 3	Oxidizing liquids category 3
Ox. Sol. 1	Oxidizing solids category 1
Ox. Sol. 2	Oxidizing solids category 2
Ox. Sol. 3	Oxidizing solids category 3
Press. Gas	Gases under pressure
Self-react. A	Self-reactive chemicals type A
Self-react. B	Self-reactive chemicals type B
Self-react. CD	Self-reactive chemicals type C and D
Self-react. EF	Self-reactive chemicals type E and F
Self-react. G	Self-reactive chemicals type G
Pyr. Liq. 1	Pyrophoric liquids category 1
Pyr. Sol. 1	Pyrophoric solids category 1
Self-heat. 1	Self-heating chemicals category 1
Self-heat. 2	Self-heating chemicals category 2
Water-react. 1	Chemicals which, if in contact with water, emits flammable gases category 1
Water-react. 2	Chemicals which, if in contact with water, emits flammable gases category 2
Water-react. 3	Chemicals which, if in contact with water, emits flammable gases category 3
Org. Perox. A	Organic peroxides type A
Org. Perox. B	Organic peroxides type B
Org. Perox. CD	Organic peroxides type C and D
Org. Perox. EF	Organic peroxides type E and F
Org. Perox. G	Organic peroxides type G
Met. Corr. 1	Corrosive to metals category 1
Acute Tox. 1	Acute toxicity category 1
Acute Tox. 2	Acute toxicity category 2
Acute Tox. 3	Acute toxicity category 3
Acute Tox. 4	Acute toxicity category 4
Skin Corr. 1A	Skin corrosion or irritation category 1A
Skin Corr. 1B	Skin corrosion or irritation category 1B
Skin Corr. 1C	Skin corrosion or irritation category 1C
Skin Irrit. 2	Skin corrosion or irritation category 2
Eye Dam. 1	Serious eye damage or eye irritation category 1

Eye Irrit. 2	Serious eye damage or eye irritation category 2
Resp. Sens. 1	Respiratory sensitization category 1
Skin Sens. 1	Skin sensitization category 1
Muta. 1A	Germ cell mutagenicity category 1A
Muta. 1B	Germ cell mutagenicity category 1B
Muta. 2	Germ cell mutagenicity category 2
Carc. 1A	Carcinogenicity category 1A
Carc. 1B	Carcinogenicity category 1B
Carc. 2	Carcinogenicity category 2
Repr. 1A	Reproductive toxicity category 1A
Repr. 1B	Reproductive toxicity category 1B
Repr. 2	Reproductive toxicity category 2
Lact.	Effect on or via lactation
STOT SE 1	Specific target organ toxicity – single exposure category 1
STOT SE 2	Specific target organ toxicity – single exposure category 2
STOT SE 3	Specific target organ toxicity – single exposure category 3
STOT RE 1	Specific target organ toxicity – repeated exposure category 1
STOT RE 2	Specific target organ toxicity – repeated exposure category 2
Asp. Haz.	Aspiration hazard category 1
Aquatic Acute 1	Hazardous to the aquatic environment – acute hazard category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – chronic hazard category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – chronic hazard category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – chronic hazard category 3
Aquatic Chronic 4	Hazardous to the aquatic environment – chronic hazard category 4
Ozone	Hazardous to the ozone layer category 1

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.