

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): **Forum®**

Versi (Version): 8.1

(30272840/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print): 19.03.2024

1. Pengenalan bahan kimia dan pembekal

Forum®

Kegunaan: produk pelindung tanaman, fungisid

Syarikat:

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2. Pengenalan Bahaya

Pengelasan bahan dan campuran:
Pemb. 1B (kesuburan)

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

Unsur label dan pernyataan berjaga-jaga:

Piktogram:



Kata Isyarat:
bahaya

Pernyataan Bahaya:

H360F

Boleh menjejaskan kesuburan.

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 perlindungan, pakaian perlindungan dan perlindungan mata atau perlindungan muka.

P201

Dapatkan arahan khas sebelum menggunakan produk.

P202

Jangan kendalikan sehingga semua langkah keselamatan telah dibaca dan difahami.

Pernyataan Berjaga-jaga (Tindak Balas):

P308 + P313

Jika terdedah kepada bahan atau terkena bahan: Dapatkan nasihat/rawatan perubatan.

Pernyataan Berjaga-jaga (Penyimpanan):

P405

Simpan di tempat berkunci.

Pernyataan Berjaga-jaga (Pelupusan):

P501

Buangkan kandungan dan bekas ke tempat pengumpulan bahan sisa merbahaya atau khas.

Bahaya lain yang tidak menyebabkan pengelasan:

Lihat seksyen 12 - Keputusan PBT dan Penilaian vPvB

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 Wakil Suruhanjaya (EU) 2017/2100 atau Peraturan Suruhanjaya (EU) 2018/605.

3. Komposisi dan Maklumat Mengenai Ramuan Bahan Kimia

Kedaaan kimia

produk pelindung tanaman, fungisid, debu boleh basah

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Ramuan berbahaya

Dimethomorph techn.

| | |
|----------------------------------|----------------------|
| Kandungan (berat/berat): 50.04 % | Pemb. 1B (fertility) |
| Nombor CAS: 110488-70-5 | Akuatik Kronik 2 |

Naphthalenesulfonic acid, bis(1-methylethyl)-, sodium salt

| | |
|--------------------------------|---------------------------------------|
| Kandungan (berat/berat): < 5 % | Toks. Akut 4 (Penyedutan - habuk) |
| Nombor CAS: 1322-93-6 | Toks. Akut 4 (oral) |
| | Kros./Kreng. Mata 1 |
| | STOT SE 3 (irr. to respiratory syst.) |
| | Akuatik Kronik 3 |

Kuartza (SiO₂)

| | |
|----------------------------------|--|
| Kandungan (berat/berat): < 0.5 % | Kars. 1A (melalui penyedutan) |
| Nombor CAS: 14808-60-7 | STOT RE (Paru-paru) 1 (melalui penyedutan) |

Kaolin

| |
|---------------------------------|
| Kandungan (berat/berat): < 40 % |
| Nombor CAS: 1332-58-7 |

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:

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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:
serbuk kering, busa, semburan air

Alat memadam yang tidak sesuai untuk tujuan keselamatan:
karbon dioksida, pancutan air

Bahaya tertentu:
karbon monoksida, karbon dioksida, hidrogen klorida, nitrogen oksida, sebatian halogen, sulfur oksida, silikon oksida
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:
Gunakan pakaian pelindung diri. Elakkan dari bersentuhan dengan kulit, mata dan pakaian. Elakkan pembentukan debu.

Langkah berjaga-jaga untuk alam sekitar:
Jangan lepaskan ke dalam subtanah/tanah. Jangan lepaskan ke dalam parit/air permukaan/air tanah.

Kaedah pembersihan atau penyerapan:
Bagi sejumlah kecil: Bendung dengan bahan pengikat debu dan lupuskan.
Bagi sejumlah besar: Sapu/sodok.
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. Elakkan pertambahan debu. 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:

Debu boleh membentuk campuran mudah meletup di udara. Elakkan pembentukan debu. Elakkan cas elektrostatik - jauhkan dari sumber pencucuhan - pemadam api hendaklah mudah digunakan.

Penyimpanan

Asingkan daripada makanan dan makanan haiwan.

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

Kestabilan penyimpanan:

Tempoh penyimpanan: 36 bulan

8. Kawalan pendedahan dan perlindungan diri

Komponen dengan parameter kawalan tempat kerja

Kaolin, 1332-58-7;

Nilai TWA 2 mg/m³ (ACGIHTLV), Bahagian boleh disedut

Nilai ini adalah untuk bahan zarah yang tidak mengandungi asbestos dan <1% silika berhablur.

Nilai TWA 2 mg/m³ (OEL (Peraturan USECHH Malaysia)), Bahagian boleh disedut

Nilai ini adalah untuk bahan zarah yang tidak mengandungi asbestos dan <1% silika berhablur.

dimethomorph, 110488-70-5;

Nilai TWA 0.67 mg/m³ (BASF recomm. occupational exposure limit)

Peralatan perlindungan peribadi

Perlindungan pernafasan:

Perlindungan pernafasan yang sesuai bagi kepekatan yang rendah atau kesan jangka pendek:

Penapis zarah kecekapan tinggi bagi zarah pepejal dan cecair (contohnya EN 143 atau 149, Jenis P3 atau FFP3).

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.

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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. Jauhkan daripada makanan, minuman dan barang makanan haiwan. Simpan pakaian kerja secara berasingan.

9. Sifat Fizikal dan Kimia

| | | |
|-------------------------------|--|--------------------------|
| Bentuk: | pepejal | |
| Warna: | putih | |
| Bau: | manis, sedikit berbau | |
| Ambang bau: | Tidak ditentukan disebabkan oleh bahaya kesihatan yang mungkin melalui penyedutan. | |
| nilai pH: | dianggarkan 4 - 6 (10 g/l, 20 °C) | |
| takat lebur: | dianggarkan 125 - 149 °C Nilai yang dinyatakan adalah bagi bahan kandungan aktif. | |
| takat didih: | Produk belum diuji. | |
| Takat kilat: | tidak boleh digunakan, produk adalah pepejal | |
| Tahap penyejatan: | Tidak boleh digunakan | |
| Kemudahbakaran (pepejal/gas): | tidak sangat mudah terbakar | (Arahan 92/69/EEC, A.10) |
| Had letupan bawah: | 75 g/m ³ (20 °C, 1 bar) Had rendah letupan habuk telah ditentukan . | (VDI 2263) |
| 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. | |

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| | |
|---|---|
| Penguraian terma: | Tiada penguraian jika disimpan dan dikendalikan seperti yang ditetapkan/dinyatakan. |
| pencucuhan sendiri: | Suhu: 386 °C |
| Kebolehan swapemanasan sendiri: | Tidak diuji disebabkan takat lebur yang rendah. |
| Tenaga pencucuhan minimum: | 3 - 10 mJ (dianggarkan 1 bar, 20 °C) (VDI 2263, sheet 1, 2.5) Kearuhan: 1 mH Taburan saiz butiran: < 50 µm |
| | 10 - 30 mJ (dianggarkan 1 bar, 20 °C) (VDI 2263, sheet 1, 2.5) Kearuhan: 0.1 mH Taburan saiz butiran: < 50 µm |
| Bahaya letupan: | tidak mudah meletup Produk tidak meletup, walau bagaimanapun letupan debu mungkin terhasil daripada campuran udara/debu. |
| Sifat yang menggalakkan kebakaran: | tidak merebakkan api |
| Tekanan Wap: | Nilai tidak ditentukan kerana takat lebur yang tinggi. |
| Ketumpatan pukal: | dianggarkan 281 - 345 kg/m ³ |
| Ketumpatan wap relatif (udara): | Tidak boleh digunakan |
| Keterlarutan dalam air: | mudah terserak |
| Pekali petakan n-oktanol/air (log Pow): | Penyataan adalah berdasarkan ciri setiap komponen. |
| Maklumat tentang : Dimethomorph techn. | |
| Pekali petakan n-oktanol/air (log Pow): | 2.63 - 2.73 (20 °C) |
| ----- | |
| Kelikatan, dinamik: | tidak boleh digunakan, produk adalah pepejal |

10. Kestabilan dan Kereaktifan

Keadaan yang perlu dielakkan:

Lihat MSDS bahagian 7 - Pengendalian dan Penyimpanan.

| | |
|-------------------|---|
| Penguraian terma: | Tiada penguraian jika disimpan dan dikendalikan seperti yang ditetapkan/dinyatakan. |
|-------------------|---|

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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 tertedut. Tidak toksik selepas sekali terkena kulit

Data eksperimen/dikira:
LD50 tikus (melalui mulut): 2,939 mg/kg (Garis panduan OECD 401)

LC50 tikus (melalui penyedutan): > 2.0 mg/l 4 h (Garis panduan OECD 403)
Tiada kematian diperhatikan Kepekatan tertinggi boleh dicapai secara teknikal Telah diuji sebagai habuk aerosol.

LD50 tikus (dermal): > 2,000 mg/kg (Garis panduan OECD 402)
Tiada kematian diperhatikan

Kerengsaan

Penilaian kesan merengsa:
Tidak merengsakan mata. Tidak merengsakan kulit.

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

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

Pemekaan pernafasan/kulit

Penilaian pemekaan:
Tidak terdapat bukti pemekaan kulit yang berpotensi.

Data eksperimen/dikira:
Ujian Buehler marmut: Tidak memeka (Garis panduan OECD 406)

Kemutagenan sel germa

Penilaian kemutagenan:

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

Kekarsinogenan

Penilaian kekarsinogenan:

Keputusan pelbagai ujian haiwan tidak menunjukkan kesan karsonogen. Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Pecahan boleh sedut adalah < 0.1 %, oleh itu, pengelasan mengikut ketoksikan penyedutan tidak boleh diguna pakai.

Maklumat tentang : Kuartza (SiO₂)

Penilaian kekarsinogenan:

Boleh menyebabkan barah melalui penyedutan. Bahan ini didapati menyebabkan barah dalam uji kaji terhadap haiwan. Kajian epidemiologi juga menyatakan terdapat aktiviti karsinogen pada manusia. Bahan dan sebatianannya dalam bentuk habuk/aerosol boleh sedut yang dikelaskan oleh suruhanjaya MAK Jerman sebagai karsinogen kategori 1 (bahan yang menyebabkan kanser kepada manusia).

Agensi Penyelidikan Kanser Antarabangsa (IARC) mengelaskan bahan ini sebagai karsinogen manusia Kumpulan 1 (diketahui).

Ketoksikan pembiakan

Penilaian ketoksikan pembiakan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Penilaian ketoksikan pembiakan:

Pengelasan-EU Menyebabkan kelemahan kesuburan pada haiwan makmal.

Ketoksikan perkembangan

Penilaian keteratogenan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Penilaian keteratogenan:

Pengelasan-EU Kajian haiwan tidak menunjukkan kesan yang menjejaskan kesuburan pada dos yang tidak toksik kepada haiwan induk.

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.

Pecahan boleh sedut adalah < 0.1 %, oleh itu, pengelasan mengikut ketoksikan penyedutan tidak boleh diguna pakai.

Maklumat tentang : Kaolin

Penilaian ketoksikan dos berulang:

Penyedutan zarah/debu secara berulang sehingga sampai ke alveoli boleh menyebabkan kerosakan paru-paru.

Maklumat tentang : Kuartza (SiO₂)

Penilaian ketoksikan dos berulang:

Penyedutan silika berhablur boleh sedut secara berpanjangan atau berulang boleh menyebabkan silikosis. Pendedahan penyedutan berulang boleh menyebabkan kesan inflamatori pada paru-paru. Bahan boleh menyebabkan peningkatan jisim paru-paru, dan tisu paru-paru berubah setelah tersedut secara berulang.

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:

Ada kemungkinan besar produk tidak memudaratkan organisma akuatik secara akut.

Ketoksikan kepada ikan:

LC50 (96 h) 15.3 mg/l, *Oncorhynchus mykiss* (Garis panduan OECD 203, statik)

Invertebrat air:

EC50 (48 h) 14.2 mg/l, *Daphnia magna* (Garis panduan OECD 202, Bahagian 1, statik)

Tumbuhan akuatik:

EC10 (72 h) 21.9 mg/l (kadar pertumbuhan), *Scenedesmus subspicatus* (Garis panduan OECD 201, statik)

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EC50 (72 h) 60.2 mg/l (kadar pertumbuhan), *Desmodesmus subspicatus* (Garis panduan OECD 201, statik)

Tiada kesan kepekatan yang diperhatikan 3.125 mg/l (kadar pertumbuhan), *Lemna gibba* (statik)

EC50 (7 hari) > 100 mg/l (kadar pertumbuhan), *Lemna gibba* (statik)

Ketoksikan kronik kepada ikan:

EC10 (21 hari) 1.22 mg/l, *Oncorhynchus mykiss*

Ketoksikan kronik kepada invertebrata akuatik:

Tiada kesan kepekatan yang diperhatikan (22 hari), 2.5 mg/l, *Daphnia magna*

EC10 (22 hari), 1.22 mg/l, *Daphnia magna*

Mobiliti

Penilaian pengangkutan di antara bahagian di persekitaran:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Penilaian pengangkutan di antara bahagian di persekitaran:

Bahan tidak akan menyejat ke atmosfera daripada permukaan air

Diikuti dengan pendedahan kepada tanah, penyerapan ke atas zarah tanah

Keterusan dan boleh keterdegradasikan

Penilaian biodegradasi dan penyingkiran (H₂O):

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

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 : dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Penilaian potensi bioakumulasi:

Oleh sebab pekali agihan n-oktanol/air (log Pow), tidak dijangka terakumulasi dalam organisma.

Maklumat tambahan

Nasihat ekotoksikologi lain:

Jangan lepaskan produk ke persekitaran tanpa kawalan.

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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:

Tidak dikelaskan sebagai berbahaya di bawah peraturan pengangkutan

Pengangkutan laut

IMDG

Tidak dikelaskan sebagai berbahaya di bawah peraturan pengangkutan

Pengangkutan udara

IATA/ICAO

Tidak dikelaskan sebagai berbahaya di bawah peraturan pengangkutan

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

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

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 Pukal 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 |
| 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 | Kakisan 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 |
| 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 |

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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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Produk (Product): **Forum®**

Versi (Version): 8.1

(30272840/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print): 19.03.2024

1. Identification of the chemical and of the supplier

Forum®

Use: crop protection product, fungicide

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:

Repr. 1B (fertility)

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:

H360F

May damage fertility.

EUH401

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

Precautionary Statement:

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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, protective clothing and eye protection or face protection.
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.

Precautionary Statements (Response):

P308 + P313 IF exposed or concerned: Get medical attention.

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, fungicide, Wettable powder (WP)

Hazardous ingredients

Dimethomorph techn.

Content (W/W): 50.04 %

CAS Number: 110488-70-5

Repr. 1B (fertility)

Aquatic Chronic 2

Naphthalenesulfonic acid, bis(1-methylethyl)-, sodium salt

Content (W/W): < 5 %

CAS Number: 1322-93-6

Acute Tox. 4 (Inhalation - dust)

Acute Tox. 4 (oral)

Eye Dam./Irrit. 1

STOT SE 3 (irr. to respiratory syst.)

Aquatic Chronic 3

Quartz (SiO₂)

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Tarikh cetakan (Date of print): 19.03.2024

Content (W/W): < 0.5 %
CAS Number: 14808-60-7Carc. 1A (by inhalation)
STOT RE (Lung) 1 (by inhalation)

Kaolin

Content (W/W): < 40 %
CAS Number: 1332-58-7

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:

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:

dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:

carbon dioxide, water jet

Specific hazards:

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

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

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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:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

Environmental precautions:

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

Methods for cleaning up or taking up:

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

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. Avoid raising dust. 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:

Dust can form an explosive mixture with air. Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

Segregate from foods and animal feeds.

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

Storage stability:

Storage duration: 36 Months

8. Exposure controls and personal protection

Components with occupational exposure limits

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Kaolin, 1332-58-7;

TWA value 2 mg/m³ (ACGIHTLV), Respirable fraction

The value is for particulate matter containing no asbestos and <1% crystalline silica.

TWA value 2 mg/m³ (OEL (MY)), Respirable fraction

The value is for particulate matter containing no asbestos and <1% crystalline silica.

dimethomorph, 110488-70-5;

TWA value 0.67 mg/m³ (BASF recomm. occupational exposure limit)

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with high efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P3 or FFP3).

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).

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. Keep away from food, drink and animal feeding stuffs. Store work clothing separately.

9. Physical and Chemical Properties

| | |
|------------------|--|
| Form: | solid |
| Colour: | white |
| Odour: | sweetish, faint odour |
| Odour threshold: | Not determined due to potential health hazard by inhalation. |

| | |
|-----------|----------------------------------|
| pH value: | approx. 4 - 6 (10 g/l, 20 °C) |
|-----------|----------------------------------|

| | |
|----------------|--|
| Melting point: | approx. 125 - 149 °C The values mentioned are those of the active ingredient. |
|----------------|--|

| | |
|----------------|----------------------------------|
| Boiling point: | The product has not been tested. |
|----------------|----------------------------------|

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| | | |
|---|--|--|
| Flash point: | not applicable, the product is a solid | |
| Evaporation rate: | not applicable | |
| Flammability (solid/gas): | not highly flammable | (Directive 92/69/EEC, A.10) |
| Lower explosion limit: | 75 g/m ³ (20 °C, 1 bar) The lower explosion limit of dust has been determined. | (VDI 2263) |
| 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. | |
| Thermal decomposition: | No decomposition if stored and handled as prescribed/indicated. | |
| Self ignition: | Temperature: 386 °C | (Method: Regulation 440/2008/EC, A.16) |
| Self heating ability: | Not tested on account of the low melting-point. | |
| Minimum ignition energy: | 3 - 10 mJ (approx. 1 bar, 20 °C) Inductivity: 1 mH | (VDI 2263, sheet 1, 2.5) |
| | Grain size distribution: < 50 µm 10 - 30 mJ (approx. 1 bar, 20 °C) Inductivity: 0.1 mH | (VDI 2263, sheet 1, 2.5) |
| Explosion hazard: | Grain size distribution: < 50 µm not explosive | (Regulation 440/2008/EC, A.14) |
| | Product is not explosive, however a dust explosion could result from an air / dust mixture. | |
| Fire promoting properties: | not fire-propagating | (Regulation 440/2008/EC, A.17) |
| Vapour pressure: | The value has not be determined because of the high melting point. | |
| Bulk density: | approx. 281 - 345 kg/m ³ | |
| Relative vapour density (air): | not applicable | |
| Solubility in water: | dispersible | |
| Partitioning coefficient n-octanol/water (log Pow): | The statements are based on the properties of the individual components. | |

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Tarikh cetakan (Date of print): 19.03.2024

Information on: Dimethomorph techn.

Partitioning coefficient n-octanol/water (log Pow): 2.63 - 2.73
(20 °C)

Viscosity, dynamic:

not applicable, the product is a solid

10. Stability and Reactivity

Conditions to avoid:

See SDS section 7 - Handling and storage.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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.

Experimental/calculated data:

LD50 rat (oral): 2,939 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 2.0 mg/l 4 h (OECD Guideline 403)

No mortality was observed. Highest concentration technically achievable. Tested as dust aerosol.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

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Not irritating to the eyes. Not irritating to the skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

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

Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:

Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

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

Carcinogenicity

Assessment of carcinogenicity:

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

The respirable fraction is < 0.1 %, therefore the classification regarding inhalation toxicity does not apply.

Information on: Quartz (SiO₂)

Assessment of carcinogenicity:

May cause cancer by inhalation. The substance was found to cause cancer in animal experiments. Epidemiological studies stated a carcinogenic activity also in humans. The substance and its compounds in the form of respirable dusts/aerosols classified by the German MAK commission as a category 1 carcinogen (substances that cause cancer to humans). The International Agency for Research on Cancer (IARC) has classified this substance as a Group 1 (known) human carcinogen.

Reproductive toxicity

Assessment of reproduction toxicity:

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

Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Assessment of reproduction toxicity:

EU-classification Causes impairment of fertility in laboratory animals.

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: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Assessment of teratogenicity:

EU-classification Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental 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.

The respirable fraction is < 0.1 %, therefore the classification regarding inhalation toxicity does not apply.

Information on: Kaolin

Assessment of repeated dose toxicity:

Repeated inhalative uptake of particles/dust reaching the alveoli may cause damage to the lungs.

Information on: Quartz (SiO₂)

Assessment of repeated dose toxicity:

Prolonged or repeated inhalation of respirable crystalline silica may result in silicosis. Repeated inhalation exposure may cause inflammatory effects in the lung. The substance may cause increase in lung mass and lung tissue changes after repeated inhalation.

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

BASF Helaian Data Keselamatan (BASF Safety data sheet)

Tarikh / Disemak (Date / Revised): 19.04.2023

Produk (Product): **Forum®**

Versi (Version): 8.1

(30272840/SDS_CPA_MY/MS)

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Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Toxicity to fish:

LC50 (96 h) 15.3 mg/l, *Oncorhynchus mykiss* (OECD Guideline 203, static)

Aquatic invertebrates:

EC50 (48 h) 14.2 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants:

EC10 (72 h) 21.9 mg/l (growth rate), *Scenedesmus subspicatus* (OECD Guideline 201, static)

EC50 (72 h) 60.2 mg/l (growth rate), *Desmodesmus subspicatus* (OECD Guideline 201, static)

No observed effect concentration 3.125 mg/l (growth rate), *Lemna gibba* (static)

EC50 (7 d) > 100 mg/l (growth rate), *Lemna gibba* (static)

Chronic toxicity to fish:

EC10 (21 d) 1.22 mg/l, *Oncorhynchus mykiss*

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (22 d), 2.5 mg/l, *Daphnia magna*

EC10 (22 d), 1.22 mg/l, *Daphnia magna*

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: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Assessment transport between environmental compartments:

The substance will not evaporate into the atmosphere from the water surface.

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

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: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

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Assessment bioaccumulation potential:

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

Information on: dimethomorph (ISO); 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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:

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

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

Regulation: Not evaluated

Shipment approved: Not evaluated

Pollution name: Not evaluated

Pollution category: Not evaluated

Ship Type: Not evaluated

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 |

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| | |
|-------------------|--|
| 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.