



We create chemistry

Risalah Data Keselamatan Safety data sheet

Mukasurat (Page): 1/26

BASF Risalah Data Keselamatan (BASF Safety data sheet)

Tarikh / Disemak (Date / Revised): 07.04.2018

Versi (Version): 3.1

Produk (Product): **Kotetsu 10 SC**

(30658892/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print) 06.09.2020

1. Pengenalan bahan kimia dan pembekal

Kotetsu 10 SC

Kegunaan: produk pelindung tanaman, racun serangga

Syarikat:

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Maklumat kecemasan:

Nombor Kecemasan Antarabangsa
Nombor Telefon: +49 180 2273-112

2. Pengenalan Bahaya

Pengelasan bahan dan campuran:

Ketoksikan akut: Kat. 4 (Penyedutan - kabus)

Ketoksikan akut: Kat. 4 (oral)

Bahaya akut kepada persekitaran akuatik: Kat. 1

Bahaya kronik kepada persekitaran akuatik.: Kat. 1

Unsur label dan pernyataan berjaga-jaga:

Piktogram:



Kata Isyarat:

Amaran

Pernyataan Bahaya:

Memudaratkan jika tertelan. Memudaratkan jika tersedut. Sangat toksik kepada hidupan akuatik. Sangat toksik kepada hidupan akuatik dengan kesan yang berpanjangan. Untuk mengelakkan risiko kepada kesihatan manusia dan alam sekitar, patuhi arahan semasa menggunakan bahan.

Pernyataan berjaga-jaga:

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

Pernyataan Berjaga-jaga (Pencegahan):

Elakkan daripada menyedut wap. Basuh bahagian badan yang tercemar sebersih-bersihnya selepas pengendalian. Jangan makan, minum atau merokok semasa menggunakan produk ini. Gunakan hanya di luar bangunan atau di dalam kawasan yang dialihudarakan dengan baik.

Pernyataan Berjaga-jaga (Tindak Balas):

Hubungi PUSAT RACUN atau doktor/pakar perubatan jika anda berasa tidak sihat. JIKA TERSEDUT: Pindahkan mangsa ke kawasan berudara segar dan pastikan mangsa selesa bernafas. Bilas mulut. Pungut tumpahan.

Pernyataan Berjaga-jaga (Pelupusan):

Lupuskan kandungan/ bekas ke tempat pengumpulan sisa berbahaya atau khusus.

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.

Boleh menyebabkan tindakbalas alahan : Mengandungi CAMPURAN: 5-KLOR-2-METIL-4-ISOTIAZOLIN-3-ONA DAN 2-METIL-4-ISOTIAZOLIN-3-ONA (3:1)

3. Komposisi dan Maklumat Mengenai Ramuan Bahan Kimia

Keadaan kimia

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

Ramuan berbahaya

chlorfenapyr technical

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Kandungan (berat/berat): 10 %
Nombor CAS: 122453-73-0

Acute Tox.: Kat. 3 (Penyedutan - habuk)
Acute Tox.: Kat. 4 (oral)
Aquatic Acute: Kat. 1
Aquatic Chronic: Kat. 1
Faktor-M akut: 100
Faktor-M kronik: 100

sodium alkylnaphthalene sulphonate, formaldehyde condensate
Kandungan (berat/berat): < 10 % Eye Dam./Irrit.: Kat. 2

campuran: 5-kloro-2-metil-2H-isotiazol-3-on dan 2-metil-2H-isotiazol-3-on (3:1)

Kandungan (berat/berat): < 0.005 %
Nombor CAS: 55965-84-9

Acute Tox.: Kat. 3 (oral)
Acute Tox.: Kat. 2 (Penyedutan - kabus)
Acute Tox.: Kat. 2 (dermis)
Skin Corr./Irrit.: Kat. 1B
Eye Dam./Irrit.: Kat. 1
Skin Sens.: Kat. 1A
Aquatic Acute: Kat. 1
Aquatic Chronic: Kat. 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:

Tanggalkan pakaian yang tercemar.

Jika tersedut:

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

Hubungi pusat kawalan racun atau doktor untuk mendapatkan nasihat rawatan.

Apabila terkena kulit:

Basuh bersih-bersih dengan sabun dan air.

Hubungi pusat kawalan racun atau doktor untuk mendapatkan nasihat rawatan.

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.

Jika tertelan dapatkan nasihat perubatan dengan segera (tunjukkan bekas atau label) Jangan paksa mangsa muntah melainkan diberitahu oleh pusat kawalan racun atau doktor. Hubungi pusat kawalan racun atau doktor untuk mendapatkan nasihat rawatan. Segara bawa pesakit ke hospital. Berada di bawah pengawasan doktor sekurang-kurangnya selama 7 hari.

Nota kepada doktor:

Gejala: Gejala dan kesan terpenting yang diketahui diterangkan didalam label (lihat bahagian 2) dan/atau bahagian 11., Gejala dan kesan penting selanjutnya tidak diketahui setakat ini.

Simptom keracunan mungkin hanya kelihatan selepas beberapa jam atau beberapa hari.

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, karbon dioksida, busa, serbuk kering

Bahaya tertentu:

karbon monoksida, karbon dioksida, nitrogen oksida, sulfur oksida, sebatian organoklorik

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

Peralatan perlindungan khusus:

Gunakan alat pernafasan serba lengkap dan pakaian pelindung kimia.

Maklumat lanjut:

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. Dalam hal kebakaran dan/atau letupan jangan menyedut wasap. Pastikan bekas sejuk dengan menyembur air pada bekas jika terdedah kepada kebakaran.

6. Langkah-Langkah Pelepasan Tidak Sengaja

Langkah pencegahan diri:

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 menggunakan. 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 menghabur 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 tinggi atau kesan jangka panjang: Penapis gabungan bagi gas/wap sebatian organik, tak organik, asid tak organik dan alkali (contohnya EN 14387 Jenis ABEK).

Perlindungan tangan:

Sarung tangan kalis kimia yang sesuai (EN 374) jika terkena secara langsung yang berpanjangan (Disyorkan: Indeks pelindung 6, sama dengan masa penelapan > 480 minit mengikut EN 374): 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:	ampaian
Warna:	putih pudar
Bau:	sedikit berbau, seperti badam pahit
Ambang bau:	Tidak ditentukan kerana berbahaya melalui penyedutan.
nilai pH:	dianggarkan 6 - 8 (1 %)(m), dianggarkan 21 °C
takat beku:	dianggarkan 0 °C (1,013.3 hPa)
Julat didih:	Maklumat terpakai kepada pelarut. dianggarkan 85 - 100 °C (1,013.3 hPa) Maklumat terpakai kepada pelarut.
Takat kilat:	dianggarkan 102 °C Tiada takat kilat - Pengukuran dibuat kepada suhu yang dinyatakan, api kecil padam., Tidak mudah terbakar. (Arahan 84/449/EEC, A.9)
Tahap penyejatan:	Tidak boleh digunakan
Kemudahbakaran (pepejal/gas):	tidak sangat mudah terbakar

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:

dianggarkan 520 °C
(Arahan 92/69/EEC, A.15)
Berdasarkan kandungan air produk tidak boleh terbakar.

Penguraian terma:

252 °C , 240 kJ/kg
(DDK (OECD 113))
310 °C , 130 kJ/kg
(DDK (OECD 113))
450 °C , > 90 kJ/kg
(DDK (OECD 113))

Bahaya letupan:

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

Berdasarkan struktur kimia tiada petunjuk ciri-ciri mudah meletup.

Sifat yang menggalakkan kebakaran: tidak merebakkan api

(Direktif 2004/73/EC, A.21)

Tekanan Wap:

dianggarkan 23.3 hPa
(20 °C)
Maklumat terpakai kepada pelarut.

Kepekatan:

dianggarkan 1.07 g/cm3
(20 °C)
(Garispanduan OECD 109)

Ketumpatan wap relatif (udara):

Tidak boleh digunakan

Keterlarutan dalam air: mudah terserak

Pekali petakan n-oktanol/air (log Pow):

Tidak boleh digunakan

Klikikan, dinamik:

dianggarkan 68 mPa.s
(20 °C, 100 1/s)
(OECD 114)

Maklumat lain:

Jika perlu, maklumat tentang parameter fizikal and kimia ada dinyatakan didalam bahagian ini.

10. Kestabilan dan Kereaktifan

Keadaan yang perlu dielakkan:

Lihat MSDS bahagian 7 - Pengendalian dan Penyimpanan.

Penguraian terma: 252 °C, 240 kJ/kg (DDK (OECD 113))

Penguraian terma: 310 °C, 130 kJ/kg (DDK (OECD 113))

Penguraian terma: 450 °C, > 90 kJ/kg (DDK (OECD 113))

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

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.

11. Maklumat Toksikologi

Ketoksiikan akut

Penilaian ketoksiikan akut:

Tidak toksik selepas sekali terkena kulit Ketoksiikan sederhana selepas kali pertama tertelan. Ketoksiikan sederhana selepas pendedahan jangka-pendek.

Data eksperimen/dikira:

LD50 tikus (melalui mulut): > 500 - < 2,000 mg/kg (Garis panduan OECD 423)

LC50 tikus (melalui penyedutan): 2.62 mg/l 4 h (Garis panduan OECD 403)
Aerosol diuji

LD50 tikus (dermal): > 5,000 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: (Garis panduan OECD 404)

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

Pemekaan pernafasan/kulit

Penilaian pemekaan:

Tidak terdapat bukti pemekaan kulit yang berpotensi.

Data eksperimen/dikira:

Cerakin Nodus Limfa Setempat Mencit (LLNA) mencit:

Kemutagenan sel germa

Penilaian kemutagenan:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : campuran: 5-kloro-2-metil-2H-isotiazol-3-on dan 2-metil-2H-isotiazol-3-on (3:1)

Penilaian kemutagenan:

Bahan adalah mutagen dalam pelbagai sistem ujian dengan bakteria dan

Kekarsinogenan

Penilaian kekarsinogenan:

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

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 keteratogenen:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : campuran: 5-kloro-2-metil-2H-isotiazol-3-on dan 2-metil-2H-isotiazol-3-on (3:1)

Penilaian keteratogenen:

Bahan tidak menyebabkan kecacatan dalam kajian terhadap haiwan; walau

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 (pendedahan berulang)

Penilaian ketoksikan dos berulang:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

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Maklumat tentang : campuran: 5-kloro-2-metil-2H-isotiazol-3-on dan 2-metil-2H-isotiazol-3-on (3:1)

Penilaian ketoksikan dos berulang:

Tiada kesan buruk diperhatikan selepas pendedahan berulang dalam kajian haiwan. Selepas pemberian yang berulang, kesan yang nyata ialah kerengsaan

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.

Berpeluh disertai dengan demam, masalah penghadaman, emesis dan cirit-birit merupakan tanda-tanda awal klinikal yang biasa jika tert

12. Maklumat Ekologi

Keekotoksikan

Penilaian ketoksikan akuatik:

Sangat toksik kepada hidupan akuatik dengan kesan yang berpanjangan.

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : chlorfenapyr technical

Ketoksikan kepada ikan:

LC50 (96 h) 0.00744 mg/l, Oncorhynchus mykiss (Arahan 84/449/EEC, C.1, Aliran.)

Maklumat tentang : chlorfenapyr technical

Invertebrat air:

EC50 (96 h) 0.00203 mg/l, Mysidopsis bahia (Arahan 84/449/EEC, C.2)

Maklumat tentang : chlorfenapyr technical

Tumbuhan akuatik:

EC50 (72 h) 0.132 mg/l, Pseudokirchneriella subcapitata (Garispanduan OECD 201)

Tiada kesan kepekatan yang diperhatikan (72 h) 0.020 mg/l, Pseudokirchneriella subcapitata (Garispanduan OECD 201)

Maklumat tentang : chlorfenapyr technical

Ketoksikan kronik kepada ikan:

Tiada kesan kepekatan yang diperhatikan (93 hari) 0.003678 mg/l, Oncorhynchus mykiss

Maklumat tentang : chlorfenapyr technical

Ketoksikan kronik kepada invertebrata akuatik:

Tiada kesan kepekatan yang diperhatikan (28 hari), 0.000172 mg/l, Mysidopsis bahia

Mobiliti

Penilaian pengangkutan di antara bahagian di persekitaran:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : chlorfenapyr technical

Penilaian pengangkutan di antara bahagian di persekitaran:

Diikuti dengan pendedahan kepada tanah, penjerapan ke atas zarah tanah

Keterusan dan boleh keterdegradasikan

Penilaian biodegradasi dan penyingkiran (H₂O):

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : chlorfenapyr technical

Penilaian biodegradasi dan penyingkiran (H₂O):

Tidak mudah terbiodegradasikan (oleh kriteria OECD).

Potensi Biotumpukan

Penilaian potensi bioakumilasi:

Produk belum diuji. Penyataan diambil daripada ciri setiap komponen.

Maklumat tentang : chlorfenapyr technical

Potensi Biotumpukan:

Faktor Kebioperekatan: 116, Cyprinus carpio

Tidak dijangka terakumulasi dalam organisme.

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:

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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 CHLORFENAPYR)

Maklumat lanjut

Kod Hazchem:3Z

Nombor IERG:47

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 CHLORFENAPYR)

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 CHLORFENAPYR)

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 lain**

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

16. Maklumat lain

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

Acute Tox.	Ketoksikan akut
Aquatic Acute	Bahaya akut kepada persekitaran akuatik
Aquatic Chronic	Bahaya kronik kepada persekitaran akuatik.
Eye Dam./Irrit.	Kerengsaan mata/ kerosakan mata yang serius
Skin Corr./Irrit.	Kakisan/kerengsaan kulit
Skin Sens.	Pemeka kulit

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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Versi (Version): 3.1

Produk (Product): **Kotetsu 10 SC**

(30658892/SDS_CPA_MY/MS)

Tarikh cetakan (Date of print) 06.09.2020

1. Identification of the chemical and of the supplier

Kotetsu 10 SC

Use: crop protection product, insecticide

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:

International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (Inhalation - mist)

Acute toxicity: Cat. 4 (oral)

Hazardous to the aquatic environment - acute: Cat. 1

Hazardous to the aquatic environment - chronic: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:

Warning

Hazard Statement:

Harmful if swallowed. Harmful if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary Statement:

If medical advice is needed, have product container or label at hand. Keep out of reach of children.
Read label before use.

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Precautionary Statements (Prevention):

Avoid breathing vapours. Wash contaminated body parts thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

Precautionary Statements (Response):

Call a POISON CENTER or doctor/physician if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Rinse mouth. Collect spillage.

Precautionary Statements (Disposal):

Dispose of contents/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.

May produce an allergic reaction. Contains: MIXTURE OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1)

3. Composition/information on ingredients

Chemical nature

crop protection product, insecticide, suspension concentrate (SC)

Hazardous ingredients

Chlorfenapyr

Content (W/W): 10 %

CAS Number: 122453-73-0

Acute Tox.: Cat. 3 (Inhalation - dust)

Acute Tox.: Cat. 4 (oral)

Aquatic Acute: Cat. 1

Aquatic Chronic: Cat. 1

M-factor acute: 100

M-factor chronic: 100

sodium alkylnaphthalene sulphonate, formaldehyde condensate

Content (W/W): < 10 %

Eye Dam./Irrit.: Cat. 2

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

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Content (W/W): < 0.005 %
CAS Number: 55965-84-9

Acute Tox.: Cat. 3 (oral)
Acute Tox.: Cat. 2 (Inhalation - mist)
Acute Tox.: Cat. 2 (dermal)
Skin Corr./Irrit.: Cat. 1B
Eye Dam./Irrit.: Cat. 1
Skin Sens.: Cat. 1A
Aquatic Acute: Cat. 1
Aquatic Chronic: Cat. 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:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

Call a poison control center or physician for treatment advice.

On skin contact:

Wash thoroughly with soap and water.

Call a poison control center or physician for treatment advice.

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.

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting unless told to by a poison control center or doctor. Call a poison control center or physician for treatment advice. Take patient to hospital immediately. Medical monitoring for at least 7 days.

Note to physician:

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Symptoms of poisoning may only appear after several hours or several days.

Note to physician:

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

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, carbon dioxide, foam, dry powder

Specific hazards:

carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides, organochloric 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:

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. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures

Personal precautions:

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 higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact
(Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): 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. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: suspension
Colour: off-white

Odour:	faint odour, bitter almond-like	
Odour threshold:	Not determined since harmful by inhalation.	
pH value:	approx. 6 - 8 (1 % (m), approx. 21 °C)	
Freezing point:	approx. 0 °C (1,013.3 hPa)	
Boiling range:	Information applies to the solvent. approx. 85 - 100 °C (1,013.3 hPa) Information applies to the solvent.	
Flash point:	approx. 102 °C No flash point - Measurement made up to the indicated temperature, pilot light extinguishes., Non-flammable.	(Directive 84/449/EEC, A.9)
Evaporation rate:	not applicable	
Flammability (solid/gas):	not highly flammable	
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:	approx. 520 °C Based on the water content the product does not ignite.	(Directive 92/69/EEC, A.15)
Thermal decomposition:	252 °C , 240 kJ/kg 310 °C , 130 kJ/kg 450 °C , > 90 kJ/kg	(DSC (OECD 113))
		(DSC (OECD 113))
		(DSC (OECD 113))
Explosion hazard:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1. Based on the chemical structure there is no indicating of explosive properties.	
Fire promoting properties:	not fire-propagating	(Directive 2004/73/EC, A.21)

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

Density: approx. 1.07 g/cm³ (OECD Guideline 109)
(20 °C)

Relative vapour density (air):
not applicable

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

Viscosity, dynamic: approx. 68 mPa.s (OECD 114)
(20 °C, 100 1/s)

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Conditions to avoid:

See MSDS section 7 - Handling and storage.

Thermal decomposition: 252 °C, 240 kJ/kg (DSC (OECD 113))

Thermal decomposition: 310 °C, 130 kJ/kg (DSC (OECD 113))

Thermal decomposition: 450 °C, > 90 kJ/kg (DSC (OECD 113))

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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single skin contact. Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation.

Experimental/calculated data:

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LD50 rat (oral): > 500 - < 2,000 mg/kg (OECD Guideline 423)

LC50 rat (by inhalation): 2.62 mg/l 4 h (OECD Guideline 403)
An aerosol was tested.

LD50 rat (dermal): > 5,000 mg/kg (OECD Guideline 402)
No mortality was observed.

Irritation

Assessment of irritating effects:

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

Experimental/calculated data:

Skin corrosion/irritation rabbit: (OECD Guideline 404)

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

Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:

Mouse Local Lymph Node Assay (LLNA) mouse:

Germ cell mutagenicity

Assessment of mutagenicity:

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

Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Assessment of mutagenicity:

The substance was mutagenic in various test systems with bacterias and cell cultures; however, these results could not be confirmed in tests with mammals.

Carcinogenicity

Assessment of carcinogenicity:

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

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

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Assessment of teratogenicity:

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

Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Assessment of teratogenicity:

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were 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.

Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated exposure in animal studies. After repeated exposure the prominent effect is local irritation.

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.

Sweating and accompanying fever, digestive problems, emesis and diarrhea are common initial clinical signs of oral ingestion. Subsequent symptoms may include tremor and convulsions, tachycardia, muscle stiffness and weakness of limbs (sometimes leading to paralysis), hepatic and renal dysfunction, pancreatitis, drowsiness and sudden disturbance of consciousness, followed by coma.

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 the properties of the individual components.

Information on: Chlорfenапир

Toxicity to fish:

LC50 (96 h) 0.00744 mg/l, Oncorhynchus mykiss (Directive 84/449/EEC, C.1, Flow through.)

Information on: Chlорfenапир

Aquatic invertebrates:

EC50 (96 h) 0.00203 mg/l, Mysidopsis bahia (Directive 84/449/EEC, C.2)

Information on: Chlорfenапир

Aquatic plants:

EC50 (72 h) 0.132 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201)

No observed effect concentration (72 h) 0.020 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201)

Information on: Chlорfenапир

Chronic toxicity to fish:

No observed effect concentration (93 d) 0.003678 mg/l, Oncorhynchus mykiss

Information on: Chlорfenапир

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (28 d), 0.000172 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: Chlорfenапир

Assessment transport between environmental compartments:

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

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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: Chlорfenапир

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: Chlорfenапир

Bioaccumulation potential:

Bioconcentration factor: 116, Cyprinus carpio

Accumulation in organisms is not to be expected.

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal Considerations

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. Transport Information

Domestic transport:

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (contains CHLОРФЕНАПЫР)

Further information

Hazchem Code:3Z

IERG Number:47

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Sea transport

IMDG

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

Air transport

IATA/ICAO

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

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

Other regulations

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

16. Other Information

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

Acute Tox.

Acute toxicity

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Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Corr./Irrit.	Skin corrosion/irritation
Skin Sens.	Skin sensitization

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.