

**Chrome Free Desco® Deflocculant**

Version 3.3

Revision Date 2024-09-26

According to Regulation (EC) No. 1907/2006, Regulation (EC) No. 2020/878

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Product information**

Product Name : Chrome Free Desco® Deflocculant
Material : 1016808

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

Relevant Identified Uses : Drilling Fluid Additive
Supported

1.3**Details of the supplier of the safety data sheet**

Company : Chevron Phillips Chemical Company LP
Drilling Specialties Company LLC
10001 Six Pines Drive
The Woodlands, TX 77380

Local : Chevron Phillips Chemicals International N.V.
Airport Plaza (Stockholm Building)
Leonardo Da Vincilaan 19
1831 Diegem
Belgium

SDS Requests: (800) 852-5530
Responsible Party: Product Safety Group
Email:sds@cpchem.com

1.4**Emergency telephone:****Health:**

866.442.9628 (North America)

1.832.813.4984 (International)

Transport:

CHEMTREC 800.424.9300 or 703.527.3887(int'l)

Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090

Mexico CHEMTREC 01-800-681-9531 (24 hours)

South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Argentina: +(54)-1159839431

EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

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Austria: VIZ +43 1 406 43 43 (24 hours/day, 7 days/week)
 Belgium: 070 245 245 (24 hours/day, 7 days/week)
 Bulgaria: +359 2 9154 233
 Croatia: +3851 2348 342 (24 hours/day, 7 days/week)
 Cyprus: 1401
 Czech Republic: Toxicological Information Center +420 224 919 293, +420 224 915 402
 Denmark: Danish Poison Center (Giftlinjen): +45 8212 1212
 Estonia: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
 Finland: 0800 147 111 09 471 977 (24 hours/day)
 France: ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (24 hours/day, 7 days/week)
 Germany: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
 Greece: (0030) 2107793777 (24 hours/day, 7 days/week)
 Hungary: +36-80-201-199 (24 hours/day, 7 days/week)
 Iceland: 543 2222 (24 hours/day, 7 days/week)
 Ireland: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
 Italy: POISON CENTER MILAN – Azienda Ospedaliera Niguarda Ca` Grande Tel. +39 02 66101029; POISON CENTER ROME – Policlinico “Agostino Gemelli”, Servizio di tossicologia clinica Tel. +39 06 3054343; POISON CENTER ROME – Ospedale Pediatrico Bambino Gesù Tel. +39 06 68593726; POISON CENTER ROME – Policlinico “Umberto I” Tel. +39 06 4997 8000; POISON CENTER FOGGIA – Azienda Ospedaliera Universitaria Riuniti Tel. +39 0881 732326; POISON CENTER NAPLES – Azienda Ospedaliera “Antonio Cardarelli” Tel. +39 081 7472870; POISON CENTER FLORENCE – Azienda Ospedaliera universitaria Careggi Tel. +39 055 7947819; POISON CENTER PAVIA – IRCCS Fondazione Salvatore Maugeri Tel. +39 0382 24444; POISON CENTER BERGAMO – Azienda Ospedaliera “Papa Giovanni XXIII” Tel. 800 883 300; POISON CENTER VERONA – Azienda Ospedaliera Universitaria integrata Tel. 800 011 858;
 Latvia: State Fire and Rescue Service, phone number: 112; Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone number +371 67042473. (24 hours.)
 Liechtenstein: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
 Lithuania: +370 (85) 2362052
 Luxembourg: (+352) 8002 5500 (24 hours/day, 7 days/week)
 Malta: +356 2395 2000
 The Netherlands: NVIC: +31 (0)88 755 8000
 Norway: 22 59 13 00 (24 hours/day, 7 days/week)
 Poland: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
 Portugal: CIAV phone number: +351 800 250 250
 Romania: +40213183606
 Slovakia: +421 2 5477 4166
 Slovenia: Phone number: 112
 Spain: National Emergency Telephone Number of Spanish Poison Centre: +34 91 562 04 20 (24 hours/day, 7 days/week)
 Sweden: 112 – ask for Poisons Information

Responsible Department : Product Safety and Toxicology Group
 E-mail address : SDS@CPChem.com
 Website : www.CPChem.com

SECTION 2: Hazards identification**2.1**
Classification of the substance or mixture
REGULATION (EC) No 1272/2008

Carcinogenicity, Category 1A

H350i:

May cause cancer by inhalation.

Long-term (chronic) aquatic hazard,
Category 3

H412:

Harmful to aquatic life with long lasting effects.

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2.2**Labeling (REGULATION (EC) No 1272/2008)**

Hazard pictograms

:



Signal Word

:

Danger

Hazard Statements

:

H350i
H412May cause cancer by inhalation.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

:

Prevention:

P201

P202

Obtain special instructions before use.
Do not handle until all safety precautions
have been read and understood.

P273

Avoid release to the environment.

P280

Wear protective gloves/ protective clothing/
eye protection/ face protection/ hearing
protection.**Response:**

P308 + P313

IF exposed or concerned: Get medical
advice/ attention.**Disposal:**

P501

Dispose of contents/ container to an
approved waste disposal plant.

Hazardous ingredients which must be listed on the label:

- 14808-60-7 Crystalline Silica

2.3**Other hazards**Results of PBT and vPvB
assessment: This substance/mixture contains no components considered to
be either persistent, bioaccumulative and toxic (PBT), or very
persistent and very bioaccumulative (vPvB) at levels of 0.1%
or higher.Endocrine disrupting
properties: The substance/mixture does not contain components
considered to have endocrine disrupting properties according
to REACH Article 57(f) or Commission Delegated regulation
(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at
levels of 0.1% or higher.**SECTION 3: Composition/information on ingredients****3.1 - 3.2****Substance or Mixture**

Synonyms

:

Drilling Mud Deflocculant

Molecular formula

:

Mixture

Hazardous ingredients

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Chemical name	CAS-No. EC-No. Index No.	Classification (REGULATION (EC) No 1272/2008)	Concentration [wt%]	Specific Conc. Limits, M-factors and ATEs
Sulfomethylated Quebracho	68201-64-9 269-229-3	Aquatic Chronic 3; H412	60 - 80	
Ferrous Sulfate	17375-41-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	5 - 9	
Crystalline Silica	14808-60-7 238-878-4	Carc. 1A; H350 STOT RE 1; H372	0,1 - 1	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures**4.1****Description of first-aid measures**

- General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.
- If inhaled : If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed**Notes to physician**

- Symptoms : No data available.
- Risks : No data available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No data available.

SECTION 5: Firefighting measures

- Flash point : Not applicable
- Autoignition temperature : No data available

5.1**Extinguishing media**

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Unsuitable extinguishing media : High volume water jet.

5.2**Special hazards arising from the substance or mixture**

Specific hazards during fire fighting : Risks of ignition followed by flame propagation or secondary explosions can be caused by the accumulation of dust, e.g. on floors and ledges.

5.3**Advice for firefighters**

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and explosion protection : Avoid dust formation. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Provide appropriate exhaust ventilation at places where dust is formed.

Hazardous decomposition products : Iron Oxides. Sulfur oxides.

SECTION 6: Accidental release measures**6.1****Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment. Avoid dust formation. Avoid breathing dust.

6.2**Environmental precautions**

Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3**Methods and materials for containment and cleaning up**

Methods for cleaning up : Pick up and arrange disposal without creating dust. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

Additional advice : Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

6.4**Reference to other sections**

Reference to other sections : For personal protection see section 8. For disposal considerations see section 13.

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SECTION 7: Handling and storage

7.1

Precautions for safe handling
Handling

- Advice on safe handling : Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may not by themselves be sufficient.
- Advice on protection against fire and explosion : Avoid dust formation. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Provide appropriate exhaust ventilation at places where dust is formed.

7.2

Conditions for safe storage, including any incompatibilities

Storage

- Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

8.1

Control parameters
Ingredients with workplace control parameters

SK

Zložky	Podstata	Hodnota	Kontrolné parametre	Poznámka
Crystalline Silica	SK OEL	TSH	0,1 mg/m3	1A, Merané ako respirabilná frakcia
	SK OEL	NPEL priemerný	0,1 mg/m3	TSH, 21, 19, Tabuľka č. 3, 23, 18, 22, respirabilná frakcia
	SK OEL	NPEL priemerný	0,1 mg/m3	Pevný aerosol, respirabilná frakcia

- 18 Za fibrogénny sa považuje nerozpustný pevný aerosól vrátane kvapiek aerosólu, ktorý obsahuje viac ako 1 % fibrogénnej zložky a v pokuse na zvierati vykazuje zreteľnú fibrogénnu reakciu pľúcneho tkaniva. Ak je v aerosóle obsiahnutá fibrogénna zložka, musí sa stanoviť vždy jeho respirabilná frakcia a koncentrácia fibrogénnej zložky. Ak aerosól obsahuje menej než 1 % SiO2 a neobsahuje azbest, považuje sa za aerosól s prevažne nešpecifickým účinkom.
- 19 Respirabilná frakcia je váhový podiel častíc pevného aerosólu <= 5 µm odobraného vo vzorke ovzdušia v dýchacej zóne zamestnanca. Spôsob a techniku odberu, stanovenie koncentrácie polietavého prachu v respirabilnej a inhalovateľnej frakcii v pracovnom ovzduší podľa prijatej Johannesburgskej konvencie upravuje STN EN 481 Ovzdušie na pracovisku. Určenie veľkosti frakcií na meranie častíc rozptýlených vo vzduchu (83 3621) alebo iná obdobná technická špecifikácia s porovnateľnými alebo prísnejšími požiadavkami. Stratégu merania, výber vhodného postupu a spracovanie výsledkov upravuje STN EN 482+A1 Pracovná expozícia. Všeobecné požiadavky na pracovné charakteristiky postupov merania chemických faktorov (83 3800) a STN EN 689+AC Pracovná expozícia. Meranie inhalačnej expozície chemickým faktorom. Stratégia skúšania zhody s limitnými hodnotami pracovnej expozície (83 3610) alebo iné obdobné technické špecifikácie s porovnateľnými alebo prísnejšími požiadavkami.
- 1A Kategória 1A - Dokázaný karcinogén pre ľudí

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- 21

Fr je obsah fibrogénnej zložky v percentách v respirabilnej frakcii. Fibrogénna zložka - kremeň, kristobalit, tridymit, gama - oxid hlinitý.
- 22

Kremeň, kristobalit, tridymit, gama-oxid hlinitý je 100 % fibrogénnej zložky.
- 23

Pre pevné aerosóly, ktoré sú zároveň klasifikované ako karcinogény alebo mutagény kategórie 1A a kategórie 1B, sa ustanovujú technické smerné hodnoty (TSH). Definíciu TSH ustanovuje nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov. Požiadavky na meranie a hodnotenie azbestu ustanovuje nariadenie vlády Slovenskej republiky č. 253/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou azbestu pri práci.
- Tabuľka č. 3

pevné aerosóly s prevažne fibrogénnym účinkom
- TSH

Technické Smerné Hodnoty

SE

Beståndsdelar	Grundval	Värde	Kontrollparametrar	Anmärkning
Crystalline Silica	SE AFS	NGV	0,1 mg/m3	3, C, M, Respirabelt
	SE AFS	NGV	0,1 mg/m3	C, Respirabel fraktion

- 3

Med inhalerbar fraktion menas den dammfraction som definieras i svensk standard SS-EN 481, Arbetsplatsluft - Partikelstorleksfraktioner för mätning av luftburna partiklar, Utgåva 1, 1993, punkt 2.3 och som har en provtagningskaraktäristik enligt punkt 5.1. Med respirabel fraktion menas den dammfraction som definieras i svensk standard SS-EN 481, Arbetsplatsluft - Partikelstorleksfraktioner för mätning av luftburna partiklar, Utgåva 1, 1993, punkt 2.11 och som har en provtagningskaraktäristik enligt punkt 5.3. Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i den provtagare som beskrivs i Metodserien, Provtagning av totaldamm och respirabelt damm, Metod nr 1010, Arbetarskyddsstyrelsen, numera Arbetsmiljöverket. Filterdiametern är normalt 37 mm, men kan även vara 25 mm. Trots sitt namn provtas inte den totala mängden luftburna partiklar med denna metod.
- C

Ämnet är cancerframkallande.
- M

Medicinska kontroller kan krävas för hantering av ämnet. Se vidare föreskrifterna om medicinska kontroller i arbetslivet. För vissa ämnen ska arbetsgivaren erbjuda läkarundersökning och för andra ämnen gäller krav på periodisk läkarundersökning och tjänstbarhetsbedömning. Se föreskrifterna om kemiska arbetsmiljörisker och föreskrifterna om kvarts - stendamm i arbetsmiljön.

RS

Компоненты	Основа	Величина	Параметры контроля	Заметка
Кристаллический диоксид кремния	RS OEL CM	TWA	0,1 mg/m3	Harmful through inhalation via the lungs

RO

Componente	Sursă	Valoare	Parametri de control	Notă
Crystalline Silica	RO OEL	TWA	0,1 mg/m3	Fracțiune respirabilă

PT

Componentes	Base	Valor	Parâmetros de controle	Nota
Ferrous Sulfate	PT OEL	VLE-MP	1 mg/m3	
Crystalline Silica	PT OEL	VLE-MP	0,025 mg/m3	A2, Fração respirável

- A2

Agente carcinogénico suspeito no Homem.

PL

Składniki	Podstawa	Wartość	Parametry dotyczące kontroli	Uwaga
Crystalline Silica	PL NDS	NDS	0,1 mg/m3	frakcja respirabilna

NO

Komponenter	Grunnlag	Verdi	Kontrollparametrer	Nota
Ferrous Sulfate	FOR-2011-12-06-1358	GV	1 mg/m3	
Crystalline Silica	FOR-2011-12-06-1358	GV	0,1 mg/m3	K, respirabelt støv
	FOR-2011-12-06-1358	GV	0,3 mg/m3	K, totalstøv

- K

Kjemikalier som skal betraktes som kreftfremkallende.

NL

Bestanddelen	Basis	Waarde	Controleparameters	Opmerking
Crystalline Silica	NL WG	TGG-8 uur	0,075vezels per cm3	B1, Respirabel
	NL WG	TGG-8 uur	0,075vezels per cm3	B1, (respirabel stof)

- B1

Kankerverwekkende stoffen, vastgesteld op basis van het drempelwaarde-effect

MK

Съставки	Основа	Стойност	Параметри на контрол	Бележка
Crystalline Silica	MK OEL	MV	0,15 mg/m3	Alveolar fraction

LV

Sastāvdaļas	Bāze	Vērtība	Kontroles parametri	Piezīme
Crystalline Silica	LV OEL	AER 8 st	0,1 mg/m3	ieelpojamā frakcija

LU

Composants	Base	Valeur	Paramètres de contrôle	Note
Crystalline Silica	LU OEL	TWA	0,1 mg/m3	(poussières respirables)

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LT

Komponentai	Šaltinis	Vertė	Kontrolės parametrai	Pastaba
Crystalline Silica	LT OEL	IPRD	0,1 mg/m3	alveolinė frakcija

IS

Komponenter	Grunnlag	Verdi	Kontrollparametrer	Nota
Ferrous Sulfate	IS OEL	TWA	1 mg/m3	
Crystalline Silica	IS OEL	TWA	0,3 mg/m3	Total
	IS OEL	TWA	0,1 mg/m3	Respirable
	IS OEL	TWA	0,1 mg/m3	K, (støv som kan innåndes)
	IS OEL	TWA	0,3 mg/m3	K, Totalt støv

K Carcinogenic substances

IE

Components	Basis	Value	Control parameters	Note
Ferrous Sulfate	IE OEL	OELV - 8 hrs (TWA)	1 mg/m3	
	IE OEL	OELV - 15 min (STEL)	2 mg/m3	
Crystalline Silica	IE OEL	OELV - 8 hrs (TWA)	0,1 mg/m3	respirable
	IE OEL	OELV - 8 hrs (TWA)	0,1 mg/m3	(respirable dust)

HU

Komponensek	Bázis	Érték	Ellenőrzési paraméterek	Megjegyzés
Crystalline Silica	HU OEL	AK-érték	0,15 mg/m3	respirábilis frakció
	HU OEL	AK-érték	0,1 mg/m3	EU6, respirábilis por

EU6 2019/130 EU irányelvben közölt érték

HR

Sastojci	Temelj	Vrijednost	Nadzorni parametri	Bilješka
Ferrous Sulfate	HR OEL	GVI	1 mg/m3	
	HR OEL	KGVI	2 mg/m3	
Crystalline Silica	HR OEL	GVI	0,1 mg/m3	

GR

Συστατικά	Βάση	Τιμή	Παράμετροι ελέγχου	Σημείωση
Ferrous Sulfate	GR OEL	TWA	1 mg/m3	
	GR OEL	STEL	2 mg/m3	
Crystalline Silica	GR OEL	TWA	0,1 mg/m3	Αναπνεύσιμο κλάσμα

GB

Components	Basis	Value	Control parameters	Note
Ferrous Sulfate	GB EH40	TWA	1 mg/m3	
	GB EH40	STEL	2 mg/m3	
Crystalline Silica	GB EH40	TWA	0,1 mg/m3	13, 43, 44, 45, 46, 14, Respirable fraction
	GB EH40	TWA	0,1 mg/m3	Carc, Respirable fraction

- 13 For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols.
- 14 Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.
- 43 The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits.
- 44 Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'.
- 45 Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4.
- 46 Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with.
- Carc Capable of causing cancer and/or heritable genetic damage.

FR

Composants	Base	Valeur	Paramètres de contrôle	Note
Crystalline Silica	FR VLE	VME	0,1 mg/m3	VLR contraignantes, Fraction de poussière alvéolaire

VLR Valeurs limites réglementaires contraignantes
contraignantes

FI

Aineosat	Peruste	Arvo	Valvontaa koskevat muuttujat	Huomautus
Ferrous Sulfate	FI OEL	HTP-arvot 8h	1 mg/m3	
Crystalline Silica	FI OEL	HTP-arvot 8h	0,2 mg/m3	-, alveolijae

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	FI OEL	HTP-arvot 8h	0,05 mg/m3	alveoliijae
	FI OEL CM	TWA	0,1 mg/m3	Keuhkorakkuloihin päätyvä osuus (alveoliijae)

- Valtioneuvoston päätös räjäytys- ja louhintatyön järjestysohjeista [410/1986]

ES

Componentes	Base	Valor	Parámetros de control	Nota
Ferrous Sulfate	ES VLA	VLA-ED	1 mg/m3	
Crystalline Silica	ES VLA	VLA-ED	0,05 mg/m3	fracción respirable

EE

Komponendid, osad	Alused	Väärtus	Kontrolliparameetrid	Märkused
Crystalline Silica	EE OEL	Piirnorm	0,1 mg/m3	1, Peentolm
	EE OEL	Piirnorm	0,1 mg/m3	C, Peentolm

- 1 Peentolm koosneb alla 2,5-mikromeetrise läbimõõduga osakestest, mis võivad jõuda koos sissehingatava õhuga kopsu alveoolidesse (respireeritav fraktsioon).
C Kantserogeensed ained

DK

Komponenter	Basis	Værdi	Kontrolparametre	Note
Ferrous Sulfate	DK OEL	GV	1 mg/m3	
Crystalline Silica	DK OEL	GV	0,1 mg/m3	K, (respirabelt støv)
	DK OEL	GV	0,3 mg/m3	Totalt støv

K Betyder, at stoffet er optaget på listen over stoffer, der anses for at være kræftfremkaldende.

CZ

Složky	Základ	Hodnota	Kontrolní parametry	Poznámka
Crystalline Silica	CZ OEL	PEL	0,1 mg/m3	vlákno, respirabilní frakce

CH

Inhaltsstoffe	Grundlage	Wert	Zu überwachende Parameter	Bemerkung
Ferrous Sulfate	CH SUVA	MAK-Wert	1 mg/m3	OSHA, einatembarer Staub
Crystalline Silica	CH SUVA	MAK-Wert	0,15 mg/m3	Carc.Cat.1, NIOSH, OSHA, HSE, SSc, alveolengängiger Staub

- Carc.Cat.1 Krebserzeugende Stoffe Kategorie 1
HSE Health and Safety Executive (Occupational Medicine and Hygiene Laboratory)
NIOSH National Institute for Occupational Safety and Health
OSHA Occupational Safety and Health Administration
SSc Eine Schädigung der Leibesfrucht braucht bei Einhaltung des MAK-Wertes nicht befürchtet zu werden.

BG

Съставки	Основа	Стойност	Параметри на контрол	Бележка
Ferrous Sulfate	BG OEL	TWA	1 mg/m3	
Crystalline Silica	BG OEL	TWA	0,07 mg/m3	Респирабилна
	BG OEL	TWA	0,1 mg/m3	дъл на праха, който може да се вдишва

BE

Bestanddelen	Basis	Waarde	Controleparameters	Opmerking
Ferrous Sulfate	BE OEL	TGG 8 hr	1 mg/m3	
Crystalline Silica	BE OEL	TGG 8 hr	0,1 mg/m3	inadembare fractie
	BE OEL	TGG 8 hr	0,1 mg/m3	C, (respirabel stof)

- C De betrokken stof valt onder het toepassingsgebied van het koninklijk besluit van 2 december 1993 betreffende de bescherming van de werknemers tegen de risico's van blootstelling aan kankerverwekkende en mutagene agentia op het werk.

AT

Inhaltsstoffe	Grundlage	Wert	Zu überwachende Parameter	Bemerkung
Crystalline Silica	AT OEL	MAK-TMW	0,15 mg/m3	Alveolengängige Staubfraktion

8.2
Exposure controls
Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

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Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

- Respiratory protection : If ventilation or other engineering controls are not adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure, a supplied-air NIOSH approved respirator may be appropriate. If exposure to harmful levels of airborne material may occur, a NIOSH approved respirator that provides protection may be appropriate, such as: Air-Purifying Respirator for Dusts and Mists / P100. A positive pressure, air-supplying respirator may be appropriate if there is potential for uncontrolled release, aerosolization, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.
- Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection : Eye wash bottle with pure water. Safety glasses.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Protective suit. Safety shoes.
- Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties**9.1****Information on basic physical and chemical properties****Appearance**

- Form : Powder
- Physical state : solid
- Color : Fine reddish-brown with small white specks
- Odor : Odorless
- Odor Threshold : Not applicable

Safety data

- Flash point : Not applicable

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Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Oxidizing properties	: No
Autoignition temperature	: No data available
Thermal decomposition	: No data available
Molecular formula	: Mixture
Molecular weight	: Not applicable
pH	: Not applicable
Pour point	: No data available
Boiling point/boiling range	: Not applicable
Vapor pressure	: Not applicable
Relative density	: Not applicable
Density	: 1,60 g/cm3
Water solubility	: partly soluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: Not applicable
Relative vapor density	: Not applicable
Evaporation rate	: Not applicable

SECTION 10: Stability and reactivity**10.1**

Reactivity : Stable at normal ambient temperature and pressure.

10.2

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3**Possibility of hazardous reactions**

Hazardous reactions : Further information: No decomposition if stored and applied as

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directed.

10.4

Conditions to avoid : Generation of Dusts.

10.5

Materials to avoid : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Thermal decomposition : No data available

10.6

Hazardous decomposition products : Iron Oxides
Sulfur oxides

Other data : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1

Information on toxicological effects

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Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Acute dermal toxicity

Sulfomethylated Quebracho :
No data available

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Skin irritation : May cause skin irritation and/or dermatitis.

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Eye irritation : Product dust may be irritating to eyes, skin and respiratory system.

Repeated dose toxicity

Sulfomethylated Quebracho : Species: Rat, male
Sex: male
Application Route: oral gavage
Dose: 100, 300, 1000 mg/kg
Exposure time: 32 d
Number of exposures: Daily
NOEL: 1.000 mg/kg
Method: OECD Guideline 422
No adverse effects expected

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Species: Rat, female
Sex: female
Application Route: oral gavage
Dose: 100, 300, 1000 mg/kg
Exposure time: 39 - 47 d
Number of exposures: Daily
NOEL: 1.000 mg/kg
Method: OECD Guideline 422
No adverse effects expected

Genotoxicity in vitro

Sulfomethylated Quebracho : Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Method: OECD Guideline 473
Result: negative

Reproductive toxicity

Sulfomethylated Quebracho : Species: Rat
Sex: male
Application Route: oral gavage
Dose: 100, 300, 1000 mg/kg
Exposure time: 32 d
Number of exposures: Daily
Method: OECD Guideline 422
NOAEL Parent: 1.000 mg/kg
Fertility and developmental toxicity tests did not reveal any effect on reproduction.

Species: Rat
Sex: female
Application Route: oral gavage
Dose: 100, 300, 1000 mg/kg
Exposure time: 39 - 47 d
Number of exposures: Daily
Method: OECD Guideline 422
NOAEL Parent: 1.000 mg/kg
NOAEL F1: 1.000 mg/kg
Fertility and developmental toxicity tests did not reveal any effect on reproduction.

Specific Target Organ Toxicity (Repeated Exposure)

Crystalline Silica : Route of Exposure:Inhalation
Target Organs: Lungs
Assessment: Causes damage to organs through prolonged or repeated exposure.

CMR effects

Crystalline Silica : Carcinogenicity: Human carcinogen.

11.2

Information on other hazards

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Further information : No data available.

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Endocrine disrupting properties : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1

Toxicity

Ecotoxicity effects
Toxicity to fish

Sulfomethylated Quebracho : LL50: > 1.800 mg/l
Exposure time: 96 h
Species: Scophthalmus maximus (Flatfish, Flounder)
Method: OECD Test Guideline 203

Ferrous Sulfate LL50: > 6,25 mg/l
Exposure time: 96 h
Species: Cyprinodon variegatus (sheepshead minnow)
semi-static test Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

Sulfomethylated Quebracho : EL50: 73,2 mg/l
Exposure time: 48 h
Species: Acartia tonsa (Marine Copepod)
Method: ISO TC147/SC5/WG2

Ferrous Sulfate LC50: 190 mg/l
Exposure time: 48 h
Species: Acartia tonsa (Marine Copepod)
Method: ISO TC147/SC5/WG2

Toxicity to algae

Sulfomethylated Quebracho : ErC50: > 100 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201

EbC50: 79 mg/l
Exposure time: 72 h
Species: Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201

Ferrous Sulfate EL50: 45 mg/l
Exposure time: 72 h
Species: Skeletonema costatum (Marine Algae)
Method: ISO 10253

12.2

Persistence and degradability

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Biodegradability : Not applicable

12.3**Bioaccumulative potential**

Elimination information (persistence and degradability)

Bioaccumulation : This material is not expected to bioaccumulate.

12.4**Mobility in soil**

Mobility : No data available

12.5**Results of PBT and vPvB assessment**

Results of PBT assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6**Endocrine disrupting properties**

Endocrine disrupting properties : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7**Other adverse effects**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

12.8**Additional Information****Ecotoxicology Assessment**

Short-term (acute) aquatic hazard

Sulfomethylated Quebracho : Harmful to aquatic life.

Long-term (chronic) aquatic hazard

Sulfomethylated Quebracho : Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1****Waste treatment methods**

The information in this SDS pertains only to the product as shipped.

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Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

- Product

: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
- Contaminated packaging

: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

14.1 - 14.7

Transport information
The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (FERROUS SULFATE), 9, III, RQ (FERROUS SULFATE)

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

- 15.1
Safety, health and environmental regulations/legislation specific for the substance or mixture
National legislation
Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 15.2

Major Accident Hazard Legislation : ZEU_SEVES3 Update: Not applicable

Notification status

Europe REACH : A substance or substances in this product is not registered or notified to be registered. Importation or manufacture of this product is still permitted provided that it does not exceed the REACH minimum threshold quantity of the non-regulated substances.

Switzerland CH INV : Not in compliance with the inventory

United States of America (USA) TSCA : On or in compliance with the active portion of the TSCA inventory

Canada DSL : All components of this product are on the Canadian DSL

Australia AIIC : On the inventory, or in compliance with the inventory

New Zealand NZIoC : On the inventory, or in compliance with the inventory
Notification number: HSR002512

Korea KECI : A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance or the exported amount does not exceed the minimum threshold quantity of the non-registered substance(s).

Japan ENCS : Not in compliance with the inventory

Philippines PICCS : Not in compliance with the inventory

Taiwan TCSI : Not in compliance with the inventory

China IECSC : On the inventory, or in compliance with the inventory

Philippines PICCS : Not in compliance with the inventory

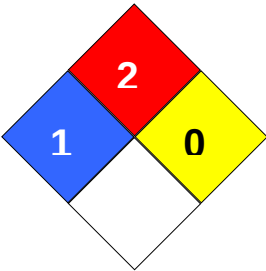
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SECTION 16: Other information

NFPA Classification : Health Hazard: 1
Fire Hazard: 2
Reactivity Hazard: 0



Further information

Legacy SDS Number : 59420

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AIIC	Australian Inventory of Industrial Chemicals	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and	TSCA	Toxic Substance Control Act

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	New Chemical Substances		
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%	ATE	Acute toxicity estimate

Full text of H-Statements referred to under sections 2 and 3.

- H302

Harmful if swallowed.
- H315

Causes skin irritation.
- H319

Causes serious eye irritation.
- H350

May cause cancer.
- H350i

May cause cancer by inhalation.
- H372

Causes damage to organs through prolonged or repeated exposure if inhaled.
- H412

Harmful to aquatic life with long lasting effects.