

Abrasive Products

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Issue date: 10/02/2020

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Version: 1.3

SECTION 1: Identification

1.1. Product identifier

Product form	Article
Generic name	Abrasive Products
Product code	BU ET&A

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Supplier

Hilti (Canada) Corp.
2360 Meadowpine Boulevard
L5N 6S2 Mississauga, Ontario - Canada
T +1905 8139200
1-800-363-4458 toll free - F +1 905 813 9009

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering - Deutschland
T +49 8191 906876
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1.4. Emergency telephone number

Emergency number	Chem-Trec
	Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
	Tel.: 703 527 3887 (Other countries)

SECTION 2: Hazard identification

A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis

2.1. Classification of the substance or mixture

Classification (GHS CA)

Not classified

2.2. GHS Label elements, including precautionary statements

GHS CA labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Aluminum oxide (Al ₂ O ₃)		(CAS-No.) 1344-28-1	≤ 80	Not classified

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silicon carbide	annanox CK / betarundum / betarundum ST-S / betarundum UF / betarundum ultrafine / carbofax M / carbofrax M / carbon silicide / carbonite / carborundeum / cristar / crystolon 37 / crystolon 39 / crystolon B / densic C 500 / DU-A 1 / DU-A 2 / DU-A 3 / DU-A 3c / DU-A 4 / electrotron / GC 10000 / green densic / green densic GC 800 / hitaceram SC 101 / KZ3M / KZ5M / KZ7M / lapping powder nr 2800 / moissanite / NICALON / SC 201 / SC 9 / SC 9 (carbide) / SCW 1 / SD-GP 6000 / SD-GP 8000 / SIKA / silar silicon carbide whiskers / silicon carbide / silicon carbide (SiC) / silicon carbide abrasive 50 / silicon carbide anti-slip 8/16 grit / silicon carbide grit 12/30 / silicon monocarbide / silundum / tokawhisker / UA 1 / UA 2 / UA 3 / UA 4 / UF 15 / unirundum / YE 5626	(CAS-No.) 409-21-2	≤ 75	Not classified
zirconium dioxide	zirconium dioxide / zirconium oxide (ZrO2)	(CAS-No.) 1314-23-4	≤ 75	Resp. Sens. 1, H334 Skin Sens. 1, H317
pyrite (FeS2)	ferric sulfide / fool's gold / iron disulfide / pyrite (FeS2) / pyritic ash	(CAS-No.) 1309-36-0	≤ 20	Eye Irrit. 2A, H319
calcium oxide	airlock / BELL CML / BELL cml(E) / burnt lime / calcia / calcium monoxide / calcium oxide / calcium oxide (CaO) / caloxol CP2 / caloxol W3 / CALX / CALX USTA / calxyl / CML 21 / CML 31 / desical P / dolomit quick lime / fluxing lime / lime / lime, burned / lime, burnt / lime, caustic / lime, chemical / lime, fluxing / lime, quick / lime, unslaked / oxide of calcium / pebble lime / quick lime / quick lime, dolomitic / rhenosorb C / rhenosorb F / unslaked lime / white rock lime	(CAS-No.) 1305-78-8	≤ 10	Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335
potassiumtetrafluoroborate	avogadrite / avogadrite, natural / avogodrite / borate(1-), tetrafluoro-, potassium / potassiumborofluoride / potassiumboronfluoride / potassiumfluoborate / potassiumfluoborate spec102flk / potassiumfluoborate spec104 / potassiumfluoborate, crystal / potassiumfluoroborate	(CAS-No.) 14075-53-7	≤ 10	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
calcium fluoride	acid spar / calcium difluoride / calcium fluoride / calcium fluorite (CaF2) / derbyshirespar / fluorite / fluorite, natural / fluorspar / irtran 3 / liparite / met spar / natural fluorite / spath fluor	(CAS-No.) 7789-75-5	≤ 10	Not classified

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Calcium Carbonate	200523 / aeromatt / akadama / albacar / albacar 5970 / albafile / albaglos / albaglos SF / allied whiting / aragonite / atomit / atomite / AX 363 / BF 200 / brilliant 15 / brilliant 1500 / C.I. pigment white 18 / calcen CO / calcene NC / calcene TM / calcidar 40 / calcidio / calcilit 100 / calciliit 8 / CALCITEC / calcium carbonate / calcium carbonate, precipitated / calciumcarbonate, prepared / calcspar / calibrite / calicoll / cal-light SA / calmos / calmote / calofil A4 / calofil B1 / calofil E2 / calofil S / calofil T / calofil U / calofil U50 / calofort S / calofort T / calofort U / calofort U50 / calopake F / calopake FS / calopake H / calopake high opacity / calopake PC / calseeds / caltec / camel-carb / camel-tex / camel-wite / carbital 90 / carbiium / carbiium MM / carbonic acid calcium salt / carbonic acid calcium salt (1:1) / carborex 2 / carusis P / CCC G-white / CCC no. AA colitic / CCR (=calcium carbonate) / CCW (=calcium carbonate) / chalk, precipitated / chalk, prepared / chemcarb / citrical / clefnon / crystic prefil S / dacote / domar / drop chalk / drucal 2 NH / duramite / durcal 10 / durcal 40 / durcal C 640305 / E 170 / E170 / egri M 5 / english white / eskalon 100 / eskalon 1500 / eskalon 200 / eskalon 400 / eskalon 800 / filtex white base / finncarb 6002 / finncarb 6005 / finncarb 6010 / finncarb 9005 / finncarb 9010 / fortimax / garolite SA / Gilder's whiting / hakuenda CC / hakuenda DD / hakuenda O / hakuenda PX / hakuenda PZ / hakuenda R 06 / hakuenda T-DD / hakunda CCR / homocal D / hydrocarb / HYDROCARB 50 BG / hydrocarb 60 / hydrocarb 65 / hydrocarb 95T / K 250 / kotamite / kredafil 150 extra / kredafil RM 5 / KS 1300 / KS 1500 / KS 1800 / KS 2100 / KS 500 / KULU 40 / MARBLE FLOUR / marble white / marble white 325 / marfil / MC-T / microcarb / micromic CR-16 / microwhite 25 / mikrosöhl 40 / millicarb / MSK-C / MSK-G / MSK-K / MSK-P / MSK-PO / MSK-V / multiflex MM / multiflex SC / N34 / N43 / NCC 45 / NCC-P / neoantacid / neolite F / neolite SP / neolite TPS / non-fer-al / NS (=calcium carbonate) / NS 100 / NS 200 / NS 2500 / NS 400 / NZ (=calcium carbonate) / OA-A 1102 / OMYA / OMYA BLH / OMYA BLR-2 / OMYA BLRZ / omya D 40 / OMYA EXH 1 SP / OMYA-BLP 2 / OMYA-BLP 3 / omyacarb F / omyalene G 200 / omyalite 90 / omyalite 95T / omyalite BL / OS-CAL / paris white / P-lite 500 / P-lite 700 / polcarb / PS100 / purecal / purecal O / purecal SC / purecal T / purecal U / PZ (=calcium carbonate) / queensgate whiting / R jután / red ball / royal white light / RX 2557 / RX 2558 / RX 2559 / shipron A / silver W / SL 700 / smithko kalkarb whiting / snow cal GML / snow top / snowcal / snowcal 70 / snowcal 7ML / snowflake white / social E2 / social N2 / social N2S1 / social U1 / social U3 / social U3	(CAS-No.) 471-34-1	≤ 10	Not classified
10-02-2020	softon 1000 / softon 1200 / softon 1500 / softon 1800 / softon 2200 / softon H / SS 30 / SS 50 / SSB100 / stanwhite 500 / sturcal D / sturcal H / sturcal L / sturcal LS / sturcal M /			3/17

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barium sulfate	acid barium salt / actybaryte / AI3-03611 / artificial barite / artificial heavy spar / B 54 (sulfate) / B54 / Ba (sulfate) / barii sulphas / barite,artificial / baritop G powder / barium andreu / barium salt of sulfuric acid / barium sulfate / barium sulfate (1:1) / barium sulfate (BaSO4) / barium sulfate, extra pure / barium sulfate, natural / barium sulfate, other than natural / barium sulphate / bariumsulfate / bariumsulfate, blanc fixe granulated / bariumsulfate,barytes granule / bariumsulfate,blanc fixe N / bariumsulfate,MCW4518 powder / barytes / blanc fixe / blanc fixe micro / blanc fixe micro, F / blanc fixe micro, N / blanc fixe micro, SP / blanc fixe micro, super F / C.I. 77120 / C.I. pigment white 21 / caswell N° 071B / citobaryum / EPA pesticide chemical code 007502 / heavy spar / heavy spar,artificial / micronized baryt mineral / P 25 / P 25 (sulfate) / permanent white / pigment white 21 / precipitated barium sulfate / solbar(=barium sulfate) / SPARMITE C / SS 50 (=barium sulfate) / SS 50 (sulfate) / ST / sulfuric acid barium salt / sulfuric acid, barium salt (1:1)	(CAS-No.) 7727-43-7	≤ 10	Not classified
potassium sulfate	dipotassium sulphate / granupotasse / potassium sulfate / potassium sulfate (2:1) / potassium sulfate, anhydrous / potassium sulphate / SOP / sulfate of potash / sulfuric acid, dipotassium salt	(CAS-No.) 7778-80-5	≤ 10	Not classified
graphite	200522 / aerodag G / AG 1500 / aquadag / AS 1 / AT 20 / ATJ-S / atj-s graphite / black lead / C.I.77265 / C.I.pigment black 10 / canlub / carbo mineralis / carbon(=graphite) / carbon-graphite / carburet of iron / CB 150 / CB 50 / ceylon black lead / CPB5000 / DC 2 / EG0 / electrographite / EXP-F / fortafil 5Y / GK 2 / GK 3 / GP 60 / GP 60S / GP 63 / grafoil / grafoil GTA / graphite / graphite dry powder G plus / graphite fibrils / graphite,conc crystalline silica<1% / graphite,natural / graphite,powder (=grafiet) / graphnol N3M / GS2 / GY70 / H451 / hitco HMG 50 / IG 11 / korobon / lonza graphite powder KS15 / MG 1 / mineral carbon(=graphite) / MPG6 / MPG8 / papyex / PG50 / plumbago / plumbago (graphite) / potelot / pyrocarb 406 / rocol x 7119 / S 1 (graphite) / schungite / shungite / silicate,graphite / silver graphite / silver lead / SKLN 1 / stove black / swedish black lead / ucar 38 / vuls16 / VVP 66-95 / wad	(CAS-No.) 7782-42-5	≤ 5	Not classified
fiberglass	ACS fibre / Continuous Filament Glass Fiber Products / glass, oxide, chemicals / microglass milled fiber - 3000 series / refractories, glass manuf. waste / silenka chopped strands type 8045 / soda lime borosilicate glass	(CAS-No.) 65997-17-3	≤ 5	Not classified

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trisodium hexafluoroaluminate	aluminate(3-), hexafluoro-, trisodium, (OC-6-11)- / aluminum sodium fluoride / cryolite, chemically prepared / sodiualuminumfluoride / sodiumaluminumfluoride / sodiumfluoaluminate / sodiumhexafluoroaluminate / trisodium hexafluoroaluminate	(CAS-No.) 13775-53-6	≤ 5	Acute Tox. 4 (Inhalation:dust,mist), H332 STOT RE 1, H372 Aquatic Chronic 2, H411
cryolite	chiolite / cryolite / Cryolite (Na ₃ (AlF ₆)) / cryolite, natural / cryolith / ENT 24,984 / greenland spar / ice spar / icestone / koyoside / kryocide / kryolith / kyoside / trisodium hexafluoroaluminate / villiamite (=cryolite)	(CAS-No.) 15096-52-3	≤ 0.1	Acute Tox. 4 (Inhalation:dust,mist), H332 STOT RE 1, H372 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. When symptoms occur: go into open air and ventilate suspected area.
First-aid measures after skin contact	Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse eyes with water as a precaution. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Rinse mouth.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	May cause respiratory irritation.
Symptoms/effects after eye contact	May cause severe irritation.
Potential adverse human health effects and symptoms	Irritation: may cause irritation to the respiratory system.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media Water. Sand. Foam. Carbon dioxide.

5.2. Unsuitable extinguishing media

Unsuitable extinguishing media Do not use a heavy water stream.

5.3. Specific hazards arising from the hazardous product

Fire hazard	Not flammable.
Hazardous decomposition products in case of fire	Toxic fumes may be released.

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions	Use extinguishing agent suitable for surrounding fire.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up Scoop solid spill into closing containers.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

The product should not be used for purposes other than those shown above without first referring to the supplier and obtaining written handling instructions.

Hygiene measures

Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Additional hazards when processed

Normal use of this product shall imply use in accordance with the instructions on the packaging and in line with the expectations of a professional user.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Abrasive Products	
Canada (Alberta) - Occupational Exposure Limits	
OEL TWA (mg/m ³)	10 mg/m ³
Notations and remarks	Non fibrous: Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required. Fibrous: Carcinogenicity A2
Regulatory reference	Alberta Regulation 87/2009 (Alberta Regulation 182/2019)
Canada (Quebec) - Occupational Exposure Limits	
VEMP (mg/m ³)	10 mg/m ³ Td
Notations and remarks	Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
OEL TWA (mg/m ³)	10 mg/m ³ Inhalable (E - the value is for particulate matter containing no asbestos and less than 1% crystalline silica) 3 mg/m ³ Respirable (E - the value is for particulate matter containing no asbestos and less than 1% crystalline silica)
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Ontario) - Occupational Exposure Limits	
OEL TWA (mg/m ³)	10 mg/m ³ (I - Inhalable fraction) (E - The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica) 3 mg/m ³ (R - Respirable fraction) (E - The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica)
Regulatory reference	Ontario Occupational Exposure Limits under Regulation 833

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8.2. Appropriate engineering controls

Appropriate engineering controls Ensure good ventilation of the work station.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Dust formation: dust mask. In case of dust production: protective goggles.

Materials for protective clothing:

Condition	Material
	Flame retardant protective clothing

Hand protection:

Wear leather gloves.

Type	Material	Permeation	Thickness (mm)	Penetration
	leather gloves			

Eye protection:

Safety glasses

Type	Use	Characteristics
Safety glasses	Dust	

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Device	Filter type	Condition
		Dust protection

Personal protective equipment symbol(s):



Other information:

Hazardous dust of the workpiece material may be generated during grinding / drilling and/or sanding operations. National regulations for dust exposure limit values have to be taken into consideration as part of the job hazard assessment.

Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated. This dust may present a fire or dust explosion hazard and may present a serious health hazard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	No data available
Colour	Mixture contains one or more component(s) which have the following colour(s): Yellow-green Unpurified: blue-black White to yellow-brown Pure substance: colourless to white-grey Unpurified: yellow to brown Commercial substance: yellow to brown Golden-yellow Colourless or white Grey-black Colourless to white-grey White White to yellow Colourless to white

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Odour	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Odourless
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Relative evaporation rate (ether=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	> 400 °C
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Vapour pressure at 50 °C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport. Product is not explosive.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use.
Conditions to avoid	No additional information available
Incompatible materials	No additional information available
Hazardous decomposition products	Do not expose to temperatures above 250°C. Hazardous decomposition byproducts may form with exposure to high temperatures.
Hardening time:	No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

potassium sulfate (7778-80-5)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

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trisodium hexafluoroaluminate (13775-53-6)	
LC50 Inhalation - Rat	4.47 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE CA (dust,mist)	1.5 mg/l/4h
cryolite (15096-52-3)	
LC50 Inhalation - Rat	4.5 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE CA (dust,mist)	1.5 mg/l/4h
Calcium Carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
barium sulfate (7727-43-7)	
LD50 oral rat	> 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))
calcium fluoride (7789-75-5)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 5070 mg/m ³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
graphite (7782-42-5)	
LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2000 mg/m ³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
potassiumtetrafluoroborate (14075-53-7)	
ATE CA (oral)	500 mg/kg bodyweight
calcium oxide (1305-78-8)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral)
LD50 dermal rabbit	> 2500 mg/kg bodyweight (EU Method B.3: Acute toxicity (dermal), 24 h, Rabbit, Male / female, Experimental value, Dermal)
zirconium dioxide (1314-23-4)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 4.3 mg/l (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
silicon carbide (409-21-2)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
Aluminum oxide (Al₂O₃) (1344-28-1)	
LD50 oral rat	> 15900 mg/kg
LC50 Inhalation - Rat	7.6 mg/l
ATE CA (vapours)	7.6 mg/l/4h
ATE CA (dust,mist)	7.6 mg/l/4h
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

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Reproductive toxicity Not classified

STOT-single exposure Not classified

potassiumtetrafluoroborate (14075-53-7)	
STOT-single exposure	May cause respiratory irritation.

calcium oxide (1305-78-8)	
STOT-single exposure	May cause respiratory irritation.

Not classified

STOT-repeated exposure

trisodium hexafluoroaluminate (13775-53-6)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

cryolite (15096-52-3)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not classified

Likely routes of exposure	Inhalation.
Potential adverse human health effects and symptoms	Irritation: may cause irritation to the respiratory system.
Symptoms/effects after inhalation	May cause respiratory irritation.
Symptoms/effects after eye contact	May cause severe irritation.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) Not classified

Hazardous to the aquatic environment, long-term (chronic) Not classified

potassium sulfate (7778-80-5)	
LC50 fish 1	680 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, GLP)
EC50 72h algae (1)	2900 mg/l (Scenedesmus subspicatus, Literature study)

trisodium hexafluoroaluminate (13775-53-6)	
LC50 fish 1	99 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Static system, Fresh water, Experimental value)
EC50 Daphnia 1	156 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae (1)	3.2 mg/l (OECD 201: Alga, Growth Inhibition Test, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)
Partition coefficient n-octanol/water (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)

cryolite (15096-52-3)	
LC50 fish 1	99 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Static system, Fresh water, Experimental value)
EC50 Daphnia 1	156 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)

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cryolite (15096-52-3)	
EC50 72h algae (1)	3.2 mg/l (OECD 201: Alga, Growth Inhibition Test, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)
Partition coefficient n-octanol/water (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)

Calcium Carbonate (471-34-1)	
LC50 fish 1	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Saturated solution)
EC50 Daphnia 1	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Saturated solution)
EC50 72h algae (1)	> 14 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	-2.12 (Estimated value)

barium sulfate (7727-43-7)	
LC50 fish 1	> 174 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
BCF fish 1	1.2 – 74.4 l/kg (Lepomis macrochirus, Fresh water, Experimental value)

calcium fluoride (7789-75-5)	
LC50 fish 1	107.5 ppm (EPA 600/3-75/009, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across, Fluorine ion)
EC50 Daphnia 1	97 – 270 mg/l (48 h, Daphnia magna, Static system, Fresh water, Literature, Fluorine ion)

graphite (7782-42-5)	
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Behaviour)
EC50 72h algae (1)	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)
EC50 72h algae (2)	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)

calcium oxide (1305-78-8)	
LC50 fish 1	≥ 1070 mg/l (Equivalent or similar to OECD 203, 96 h, Cyprinus carpio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	≥ 159.6 mg/l (EPA OPP 72-2, 24 h, Crustacea, Static system, Fresh water, Experimental value, Lethal)
EC50 72h algae (1)	184.57 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, Growth rate)

zirconium dioxide (1314-23-4)	
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	> 100 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Read-across, GLP)
BCF other aquatic organisms 1	0.64 (24 h, Chlorella sp., Fresh water, Read-across, Fresh weight)

12.2. Persistence and degradability

fiberglass (65997-17-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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potassium sulfate (7778-80-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
trisodium hexafluoroaluminate (13775-53-6)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
cryolite (15096-52-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Calcium Carbonate (471-34-1)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
barium sulfate (7727-43-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
calcium fluoride (7789-75-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
graphite (7782-42-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
potassiumtetrafluoroborate (14075-53-7)	
Persistence and degradability	Biodegradability in soil: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
pyrite (FeS₂) (1309-36-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
calcium oxide (1305-78-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
zirconium dioxide (1314-23-4)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

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silicon carbide (409-21-2)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

fiberglass (65997-17-3)	
Bioaccumulative potential	No bioaccumulation data available.
potassium sulfate (7778-80-5)	
Bioaccumulative potential	Not bioaccumulative.
trisodium hexafluoroaluminate (13775-53-6)	
Bioaccumulative potential	Bioaccumulation: not applicable.
Partition coefficient n-octanol/water (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)
cryolite (15096-52-3)	
Bioaccumulative potential	Bioaccumulation: not applicable.
Partition coefficient n-octanol/water (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)
Calcium Carbonate (471-34-1)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	-2.12 (Estimated value)
barium sulfate (7727-43-7)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF fish 1	1.2 – 74.4 l/kg (Lepomis macrochirus, Fresh water, Experimental value)
calcium fluoride (7789-75-5)	
Bioaccumulative potential	No bioaccumulation data available.
graphite (7782-42-5)	
Bioaccumulative potential	No bioaccumulation data available.
potassiumtetrafluoroborate (14075-53-7)	
Bioaccumulative potential	No bioaccumulation data available.
pyrite (FeS₂) (1309-36-0)	
Bioaccumulative potential	No bioaccumulation data available.
calcium oxide (1305-78-8)	
Bioaccumulative potential	Not bioaccumulative.
zirconium dioxide (1314-23-4)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
BCF other aquatic organisms 1	0.64 (24 h, Chlorella sp., Fresh water, Read-across, Fresh weight)
silicon carbide (409-21-2)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

fiberglass (65997-17-3)	
Ecology - soil	No (test)data on mobility of the substance available.
potassium sulfate (7778-80-5)	
Ecology - soil	No (test)data on mobility of the substance available.
trisodium hexafluoroaluminate (13775-53-6)	
Ecology - soil	Low potential for mobility in soil. Toxic to soil organisms.
Partition coefficient n-octanol/water (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)
cryolite (15096-52-3)	
Ecology - soil	Low potential for mobility in soil. Toxic to soil organisms.

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cryolite (15096-52-3)	
Partition coefficient n-octanol/water (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)
Calcium Carbonate (471-34-1)	
Ecology - soil	Adsorbs into the soil.
Partition coefficient n-octanol/water (Log Pow)	-2.12 (Estimated value)
barium sulfate (7727-43-7)	
Ecology - soil	No (test)data on mobility of the substance available.
calcium fluoride (7789-75-5)	
Ecology - soil	No (test)data on mobility of the substance available.
potassiumtetrafluoroborate (14075-53-7)	
Ecology - soil	Adsorbs into the soil.
calcium oxide (1305-78-8)	
Ecology - soil	No (test)data on mobility of the substance available.
zirconium dioxide (1314-23-4)	
Surface tension	Not applicable (solid)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	Not classified
Other information	Do not allow the product, as is, to spread into the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
Ecology - waste materials	Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG / RID

ADR	IMDG	IATA	RID
14.1. UN number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available			

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14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

fiberglass (65997-17-3)
Listed on the Canadian DSL (Domestic Substances List)
potassium sulfate (7778-80-5)
Listed on the Canadian DSL (Domestic Substances List)
trisodium hexafluoroaluminate (13775-53-6)
Listed on the Canadian DSL (Domestic Substances List)
cryolite (15096-52-3)
Listed on the Canadian DSL (Domestic Substances List)
Calcium Carbonate (471-34-1)
Listed on the Canadian DSL (Domestic Substances List)
barium sulfate (7727-43-7)
Listed on the Canadian DSL (Domestic Substances List)
calcium fluoride (7789-75-5)
Listed on the Canadian DSL (Domestic Substances List)
graphite (7782-42-5)
Listed on the Canadian DSL (Domestic Substances List)
potassiumtetrafluoroborate (14075-53-7)
Listed on the Canadian DSL (Domestic Substances List)
pyrite (FeS₂) (1309-36-0)
Listed on the Canadian NDSL (Non-Domestic Substances List)
calcium oxide (1305-78-8)
Listed on the Canadian DSL (Domestic Substances List)
zirconium dioxide (1314-23-4)
Listed on the Canadian DSL (Domestic Substances List)
silicon carbide (409-21-2)
Listed on the Canadian DSL (Domestic Substances List)
Aluminum oxide (Al₂O₃) (1344-28-1)
Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

fiberglass (65997-17-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

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potassium sulfate (7778-80-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
trisodium hexafluoroaluminate (13775-53-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
cryolite (15096-52-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Calcium Carbonate (471-34-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
barium sulfate (7727-43-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
calcium fluoride (7789-75-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
graphite (7782-42-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
potassiumtetrafluoroborate (14075-53-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
pyrite (FeS₂) (1309-36-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
calcium oxide (1305-78-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
zirconium dioxide (1314-23-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
silicon carbide (409-21-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Aluminum oxide (Al₂O₃) (1344-28-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

SDS Major/Minor	None
Issue date	10-02-2020
Revision date	10-02-2020
Supersedes	09-11-2019

Indication of changes:

Section	Changed item	Change	Comments
5	Hazardous decomposition products in case of fire	Added	
10	Hazardous decomposition products	Modified	

Full text of H-statements:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

SDS_CA_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.