

# Abrasive Products

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 7/1/2024 Issue date: 7/1/2024 Supersedes: 10/2/2020 Version: 1.4

### SECTION 1: Identification

#### 1.1. Identification

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

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture	Milling, grinding and similar activities
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#### 1.3. Supplier

##### Supplier

Hilti, Inc.  
Legacy Tower, Suite 1000  
7250 Dallas Parkway  
US TX 75024 Plano  
USA  
T +1 9724035800  
1-800-879-8000 toll free, F +1 918 254 0522

##### Department issuing data specification sheet

Hilti AG  
Feldkircherstraße 100  
FL 9494 Schaan  
Liechtenstein  
T +423 234 2111  
[product.compliance-power.tools@hilti.com](mailto:product.compliance-power.tools@hilti.com)

#### 1.4. Emergency telephone number

Emergency number	Emergency CONTACT (24-Hour-Number) GBK/Infotrac ID 101022 (USA domestic) 1 800 535 5053 or international (001) 352 323 3500
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### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Not classified

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

No labelling applicable

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
pyrite (FeS <sub>2</sub> )	CAS-No.: 1309-36-0	< 25	Eye Irrit. 2A, H319
trisodium hexafluoroaluminate	CAS-No.: 13775-53-6	< 25	Acute Tox. 4 (Inhalation), H332 STOT RE 1, H372
Aluminum potassium fluoride	CAS-No.: 60304-36-1	< 25	Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 Lact., H362 STOT RE 1, H372
calcium oxide	CAS-No.: 1305-78-8	< 25	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

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. If necessary seek medical advice.

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

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.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	Water. Sand. Foam. Carbon dioxide.
Unsuitable extinguishing media	Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

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

### 5.3. 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

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

No additional information available

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up Shovel into suitable and closed container for disposal.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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.
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.

#### 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

<b>Abrasive Products</b>	
No additional information available	
<b>trisodium hexafluoroaluminate (13775-53-6)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	2.5 mg/m <sup>3</sup>
<b>Aluminum potassium fluoride (60304-36-1)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	2.5 mg/m <sup>3</sup>
<b>pyrite (FeS<sub>2</sub>) (1309-36-0)</b>	
No additional information available	

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<b>calcium oxide (1305-78-8)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
Local name	Calcium oxide
ACGIH OEL TWA	2 mg/m <sup>3</sup>
Remark (ACGIH)	URT irr
Regulatory reference	ACGIH 2024
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Calcium oxide
OSHA PEL TWA	5 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

### **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:**

Avoid all unnecessary exposure.

<b>Materials for protective clothing:</b>				
<b>Condition</b>		<b>Material</b>		
		Flame retardant protective clothing		
<b>Hand protection:</b>				
Protective gloves				
<b>Type</b>	<b>Material</b>	<b>Permeation</b>	<b>Thickness (mm)</b>	<b>Penetration</b>
	leather gloves			
<b>Eye protection:</b>				
In case of dust production: protective goggles. ISO 16321-1. Face shield				
<b>Type</b>		<b>Field of application</b>	<b>Characteristics</b>	
Safety glasses		Dust		
<b>Skin and body protection:</b>				
Wear suitable protective clothing				
<b>Respiratory protection:</b>				
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended				
<b>Device</b>		<b>Filter type</b>	<b>Condition</b>	
			Dust protection	

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### 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
Colour	brown to dark brown
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
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	> 400 °C
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Product is not explosive.

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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Do not expose to temperatures above 250°C. Hazardous decomposition byproducts may form with exposure to high temperatures.

## 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

<b>trisodium hexafluoroaluminate (13775-53-6)</b>	
LD50 oral rat	> 5000 mg/kg bodyweight (EU Method B.1)
LD50 dermal rat	> 2100 mg/kg bodyweight (OECD 402 method)
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))
LC50 Inhalation - Rat (Dust/Mist)	4.47 mg/l/4h (OECD 403 method)
<b>Aluminum potassium fluoride (60304-36-1)</b>	
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))
<b>calcium oxide (1305-78-8)</b>	
LD50 oral rat	> 2000 mg/kg (OECD 425 method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LD50 dermal rabbit	> 2500 mg/kg (OECD 402 method)
LC50 Inhalation - Rat	> 6.04 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified

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<b>calcium oxide (1305-78-8)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Not classified
<b>trisodium hexafluoroaluminate (13775-53-6)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
<b>Aluminum potassium fluoride (60304-36-1)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
<b>calcium oxide (1305-78-8)</b>	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Aspiration hazard	Not classified
Viscosity, kinematic	No data available
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

<b>trisodium hexafluoroaluminate (13775-53-6)</b>	
LC50 - Fish [1]	99 mg/l (96 h; Danio rerio; (OECD 203 method))
EC50 - Crustacea [1]	156 mg/l (48 h; Daphnia magna; (OECD 202 method))
EC50 72h - Algae [1]	3.2 mg/l (OECD 201: Alga, Growth Inhibition Test, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)
ErC50 algae	3.2 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))
<b>Aluminum potassium fluoride (60304-36-1)</b>	
LC50 - Fish [1]	99 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Static system, Fresh water, Experimental value)
EC50 - Crustacea [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)
<b>calcium oxide (1305-78-8)</b>	
LC50 - Fish [1]	50.6 mg/l (96 h; Oncorhynchus mykiss; (OECD 203 method))
EC50 - Crustacea [1]	49.1 mg/l (48 h; Daphnia magna; (OECD 202 method))
EC50 72h - Algae [1]	184.57 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	184.57 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))

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<b>calcium oxide (1305-78-8)</b>	
NOEC (chronic)	32 mg/l Test organisms (species): Crangon septemspinosa Duration: '14 d'

### 12.2. Persistence and degradability

<b>Abrasive Products</b>	
Persistence and degradability	Not applicable for inorganic products.

<b>trisodium hexafluoroaluminate (13775-53-6)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>Aluminum potassium fluoride (60304-36-1)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>pyrite (FeS<sub>2</sub>) (1309-36-0)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>calcium oxide (1305-78-8)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

<b>Abrasive Products</b>	
Bioaccumulative potential	Bioaccumulation unlikely.

<b>trisodium hexafluoroaluminate (13775-53-6)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable.

<b>Aluminum potassium fluoride (60304-36-1)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable.

<b>pyrite (FeS<sub>2</sub>) (1309-36-0)</b>	
Bioaccumulative potential	No bioaccumulation data available.



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calcium oxide (1305-78-8)	
Bioaccumulative potential	Not bioaccumulative.

### 12.4. Mobility in soil

trisodium hexafluoroaluminate (13775-53-6)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)
Ecology - soil	Low potential for mobility in soil. Toxic to soil organisms.

Aluminum potassium fluoride (60304-36-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.8 – 3.8 (log Koc, Other, Experimental value)
Ecology - soil	Low potential for mobility in soil. Toxic to soil organisms.

calcium oxide (1305-78-8)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

### 12.5. Other adverse effects

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

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation	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.
Ecological information	Avoid release to the environment. Hazardous waste due to toxicity.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	RID
<b>14.5. Environmental hazards</b>			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

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Revision date

07/01/2024

Data sources

European Chemicals Agency, <http://echa.europa.eu/>. manufacturer.

Full text of H-statements	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

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Full text of H-statements	
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms	
CAS-No.	Chemical Abstract Service number
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
EC50	Median effective concentration
ED	Endocrine disrupting properties
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
N.O.S.	Not Otherwise Specified
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds
WGK	Water Hazard Class

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Abbreviations and acronyms	
vPvB	Very Persistent and Very Bioaccumulative
NOAEL	No-Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
LOAEL	Lowest Observed Adverse Effect Level

NFPA health hazard

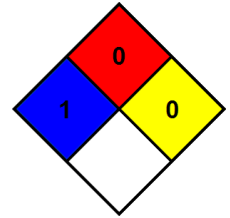
1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

1 Slight Hazard - Irritation or minor reversible injury possible

Flammability

0 Minimal Hazard - Materials that will not burn

Physical

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Indication of changes:			
Section	Changed item	Change	Comments
1	Department issuing data specification sheet	Modified	
1	Emergency number	Modified	
3	Composition/information on ingredients	Modified	

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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.