according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

· Trade name: Abrasive Products

· Other means of identification: No other identifiers

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

 \cdot Application of the substance / the mixture: Manufactured article.

· Uses advised against: No further relevant information available.

1.3 Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

Micro-Surface Finishing Products, Inc. 1217 West 3rd Street Wilton, IA 52778 563-732-3240 sales@micro-surface.com

1.4 Emergency telephone number: 563-732-3240

SECTION 2: Hazards identification

[•] 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
 The product is not classified as hazardous according to the Globally Harmonized System (GHS).
 The product is not classified as hazardous according to OSHA GHS regulations within the United States.

The product is not classified as hazardous according to the CLP regulation.

• Additional information:

Not hazardous as delivered. Long term inhalation of product dusts formed during use is harmful. Avoid breathing dust.

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

[•] 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

This product does not have a classification according to the CLP regulation.

The product is not classified as hazardous according to OSHA GHS regulations within the United States. **Hazard pictograms** Not Regulated

- Signal word Not Regulated
- · Hazard statements Not Regulated.
- · Precautionary statements Not Regulated.
- · Additional information:
- Safety data sheet available on request.
- NFPA ratings (scale 0 4)

Health = 0 Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)

(Cont'd. on page 2)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

(Cont'd. from page 1)

*0 Health = *0 HEALTH \circ Fire = 0 **REACTIVITY** Reactivity = 0

[•] 2.3 Other hazards

FIRE

There are no other hazards not otherwise classified that have been identified. 0 % of the mixture consists of component(s) of unknown toxicity. Results of PBT and vPvB assessment · **PBT:** Not applicable. **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Components:		
CAS: 409-21-2 EINECS: 206-991-8 Reg.nr.: 01-2119402892-42-XXXX	silicon carbide substance with a Community workplace exposure limit	<20%
CAS: 1344-28-1 EINECS: 215-691-6 Reg.nr.: 01-2119529248-35-XXXX	Aluminium oxide substance with a Community workplace exposure limit	<20%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg.nr.: 01-2119457290-43-XXXX	butanone Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	<1%
CAS: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17-XXXX	Titanium dioxide	<1%
CAS: 1309-37-1 EINECS: 215-168-2 Reg.nr.: 01-2119457614-35-XXXX	Diiron trioxide / iron (III) oxide substance with a Community workplace exposure limit	<1%
CAS: 1333-86-4 EINECS: 215-609-9 Reg.nr.: 01-2119384822-32-XXXX	carbon black Carc. 2, H351 STOT SE 3, H335	<1%
CAS: 7631-86-9 EINECS: 231-545-4 Reg.nr.: 01-2119379499-16-XXXX	Silicon dioxide substance with a Community workplace exposure limit	<1%

Variable percentages used per OSHA §1910.1200 (g)(4).

Products contain no Hazardous Air Pollutants (HAPs) according to Section 112(b)1 of the United States Environmental Protection Agency Clean Air Act.

(Cont'd. on page 3)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

(Cont'd. from page 2)

SECTION 4: First aid measures

4.1 Description of first aid measures

· General information: Avoid breathing dust.

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

• After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

• Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

• For safety reasons unsuitable extinguishing agents: None.

• 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

• 5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation

C 2 Environmental proposition

- 6.2 Environmental precautions No special measures required.
- · 6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

[•] 6.4 Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

(Cont'd. from page 3)

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid breathing dust.

Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

· Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles: Protect from humidity and water.

· Information about storage in one common storage facility: No further relevant information available.

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

[•] 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:		
409-21-2 silicon ca	rbide	
EL (Canada)	Long-term value: 10* 3** mg/m³ Nonfibrous: *inh. **resp.; Fibrous: 0,1 f/cc	
EV (Canada)	Long-term value: 10* 3** mg/m³, 0,1f/cc*** ppm nonfibrous: *inh.,**resp.; ***fibrous, resp.	
WEL (Great Britain)	Long-term value: 10* 4** mg/m³ *total inhalable **respirable	
OEL (Ireland)	Long-term value: 10 [*] 4** mg/m ³ *total inhalable **respirable dust	
PEL (USA)	Long-term value: 15* 5** mg/m³ fibrous dust: *total dust **respirable fraction	
REL (USA)	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction	
TLV (USA)	Long-term value: 10* 3** mg/m³ fibrous dust:0,1 f/cc; nonfibrous:*inh.,**resp.	
1344-28-1 Aluminiu	m oxide	
EL (Canada)	Long-term value: 1,0 mg/m³ respirable, as Al	
EV (Canada)	Long-term value: 10 mg/m³ total dust	
WEL (Great Britain)	Long-term value: 10* 4** mg/m³ *inhalable dust **respirable dust	
OEL (Ireland)	Long-term value: 10* 4** mg/m³ *total inhalable **respirable dust	
PEL (USA)	Long-term value: 15 [*] ; 5** mg/m³ *Total dust; ** Respirable fraction	
REL (USA)	Long-term value: 10* 5** mg/m ³	
	(Cont'd. on page 5)	

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

	as Al*Total dust**Respirable/pyro powd./welding f.	(Cont'd. from paç
TLV (USA)	Long-term value: 1* mg/m ³	
	as Al; *as respirable fraction	
78-93-3 butanone		
IOELV (EU)	Short-term value: 900 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm	
EL (Canada)	Short-term value: 100 ppm Long-term value: 50 ppm	
EV (Canada)	Short-term value: 885 mg/m³, 300 ppm Long-term value: 590 mg/m³, 200 ppm	
WEL (Great Britain)	Short-term value: 899 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, BMGV	
OEL (Ireland)	Short-term value: 900 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, IOELV	
PEL (USA)	Long-term value: 590 mg/m³, 200 ppm	
REL (USA)	Short-term value: 885 mg/m³, 300 ppm Long-term value: 590 mg/m³, 200 ppm	
TLV (USA)	Short-term value: 885 mg/m³, 300 ppm Long-term value: 590 mg/m³, 200 ppm BEI	
13463-67-7 Titaniur		
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust;**respirable fraction; IARC 2B	
EV (Canada)	Long-term value: 10 mg/m³ total dust	
WEL (Great Britain)	Long-term value: 10* 4** mg/m³ *total inhalable **respirable	
OEL (Ireland)	Long-term value: 10* 4** mg/m³ *total inhalable **respirable dust	
PEL (USA)	Long-term value: 15* mg/m³ *total dust	
REL (USA)	See Pocket Guide App. A	
TLV (USA)	Long-term value: 10 mg/m³	
	oxide / iron (III) oxide	
EL (Canada)	Short-term value: 10** mg/m³ Long-term value: 5* 10*** 3**** mg/m³ *dust & fume**fume; Rouge: ***total dust****resp.	
EV (Canada)	Long-term value: 5* 10** mg/m³ *respirable, including Rouge;**total dust	
WEL (Great Britain)	Short-term value: 10* mg/m³ Long-term value: 5* 10** 4*** mg/m³ *fume (as Fe),**total respirable,***respirable	
	· · ·	(Cont'd. on page

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

	(Cont'd. from pa
OEL (Ireland)	Short-term value: 10* mg/m³ Long-term value: 5* 10** 4*** mg/m³
	*fume, as Fe, **total inhal.,***resp. dust
PEL (USA)	Long-term value: 10* mg/m ³
	*Fume
REL (USA)	Long-term value: 5 mg/m³
	Dust & fume, as Fe
TLV (USA)	Long-term value: 5* mg/m ³
	*as respirable fraction
1333-86-4 carbon b	
EL (Canada)	Long-term value: 3 mg/m ³ IARC 2B
EV (Canada)	-
EV (Canada)	Long-term value: 3,5 mg/m ³
WEL (Great Britain)	Short-term value: 7 mg/m ³ Long-term value: 3,5 mg/m ³
OEL (Ireland)	Long-term value: 3, mg/m ³
	*inhalable fraction
PEL (USA)	Long-term value: 3,5 mg/m³
REL (USA)	Long-term value: 3,5* mg/m ³
、 ,	*0,1 in presence of PAHs;See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m ³
	*inhalable fraction
7631-86-9 Silicon d	
NIOSH REL (USA)	Long-term value: 6 mg/m ³
OSHA PEL (USA)	Long-term value: 80 mg/m ³
-	ological limit values:
78-93-3 butanone	
BMGV (Great Britain	
	Medium: urine Sampling time: post shift
	Parameter: butan-2-one
BEI (USA)	Parameter: butan-2-one 2 mg/L
BEI (USA)	Parameter: butan-2-one 2 mg/L Medium: urine
BEI (USA)	2 mg/L

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHŚ

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

(Cont'd. from page 6)

· Eye protection:



Safety glasses

· Body protection: Light weight protective clothing

· Limitation and supervision of exposure into the environment: No special requirements.

· Risk management measures: No special requirements.

SECTION 9: Physical and chemical properties		
9.1 Information on basic physical	and chemical properties	
· Appearance		
Form:	Solid material	
Colour: · Odour:	According to product specification Nitrile Rubber/Plastic	
Oddur.	No odors that outgas from this product contain Hazardous Air	
	Pollutants (HAPs).	
· Odour threshold:	Not determined.	
· pH-value:	Not applicable.	
• Melting point/freezing point:	Not determined.	
 Initial boiling point and boiling range: 	Not determined.	
· Flash point:	Not applicable.	
· Flammability (solid, gas):	Not determined.	
· Auto/Self-ignition temperature:	Not determined.	
 Decomposition temperature: 	Not determined.	
· Explosive properties:	Product does not present an explosion hazard.	
· Explosion limits		
Lower:	Not determined.	
Upper:	Not determined.	
Oxidising properties	Non-oxidising.	
· Vapour pressure:	Not applicable.	
Density:		
Relative density:	Not determined.	
Vapour density: Evaporation rate:	Not applicable. Not applicable.	
•		
 Solubility in / Miscibility with water: 	Soluble.	
· Partition coefficient: n-octanol/water:		
	Not determined.	
· Viscosity Dynamic:	Not applicable.	
	(Cont'd. on page 8)	

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

(Cont'd. from page 7)

Trade name: Abrasive Products

Kinematic: 9.2 Other information Not applicable. No further relevant information available.

SECTION 10: Stability and reactivity

- . 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions

Reacts with strong acids and alkali.

Reacts with strong oxidising agents.

- · 10.4 Conditions to avoid Prevent formation of dust.
- * 10.5 Incompatible materials No further relevant information available.

· 10.6 Hazardous decomposition products

Under fire conditions only:

Toxic metal oxide smoke

SECTION 11: Toxicological information

11.1 Information on toxicological effects

· Acute toxicity: Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification: None.

· Primary irritant effect

· Skin corrosion/irritation: Based on available data, the classification criteria are not met.

- · Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- Subacute to chronic toxicity: No further relevant information available.
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer):		
13463-67-7	Titanium dioxide	2B
1333-86-4	carbon black	2B
50-00-0	formaldehyde	1
140-88-5	ethyl acrylate	2B
	acrylonitrile	2B
409-21-2	silicon carbide	2A
79-06-1	acrylamide	2A
Probable routes of exposure:		

Eye contact.

Skin contact.

Repeated dose toxicity:

Repeated or long-term inhalation of product dusts may cause pulmonary disease.

· Germ cell mutagenicity: Based on available data, the classification criteria are not met.

(Cont'd. on page 9)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

(Cont'd. from page 8)

- · Carcinogenicity: Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- * 12.3 Bioaccumulative potential No further relevant information available.
- . 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water
- 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- * **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

· Recommendation

Smaller quantities can be disposed of with household waste.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· Uncleaned packaging:

• Recommendation: Disposal must be made according to official regulations.

• Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport informatio	n	
· 14.1 UN-Number · DOT, ADR, IMDG, IATA	Not Regulated	
 14.2 UN proper shipping name DOT, ADR, IMDG, IATA 	Not Regulated	
[·] 14.3 Transport hazard class(es)		
· DOT, ADR, IMDG, IATA · Class	Not Regulated	
		(Cont'd. on page 10)

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

	(Cont'd. from page
 14.4 Packing group DOT, ADR, IMDG, IATA 	Not Regulated
 14.5 Environmental hazards: Marine pollutant: 	Νο
[•] 14.6 Special precautions for user	Not applicable.
 14.7 Transport in bulk according to An of Marpol and the IBC Code 	nex II Not applicable.

SECTION 15: Regulatory information

 15.1 Safety or mixture United State SARA 	y, health and environmental regulations/legislation specific for the substance es (USA)
	(extremely hazardous substances):
None of the i	ingredients are listed.
· Section 355	(extremely hazardous substances):
None of the i	ingredients are listed.
· Section 313	(Specific toxic chemical listings):
1344-28-1 A	luminium oxide
TSCA (Toxic	c Substances Control Act):
All ingredient	ts are listed or exempt.
· Proposition	65 (California):
· Chemicals k	nown to cause cancer:
	Titanium dioxide
	carbon black
	formaldehyde
	ethyl acrylate
	acrylamide
107-13-1	acrylonitrile
	nown to cause developmental toxicity for females:
None of the i	ingredients are listed.
· Chemicals k	known to cause developmental toxicity for males:
79-06-1 acry	ylamide
	nown to cause developmental toxicity:
79-06-1 acry	ylamide
· EPA (Enviro	onmental Protection Agency)
78-93-3 buta	anone
·	(Cont'd. on page 11)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

	(Cont'd. from	bage 10)
· IARC (Inter	national Agency for Research on Cancer)	
409-21-2	silicon carbide	2A
13463-67-7	Titanium dioxide	2B
1333-86-4	carbon black	2B
50-00-0	formaldehyde	1
140-88-5	ethyl acrylate	2B
79-06-1	acrylamide	2A
107-13-1	acrylonitrile	2B
· Canadian Domestic Substances List (DSL) (Substances not listed)		
All ingredients are listed or exempt.		
· National regulations:		

· Water hazard class: Generally not hazardous for water.

· Other regulations, limitations and prohibitive regulations

• Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistant, Bio-accumulable, Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 Carc. 2: Carcinogenicity - Category 2 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

(Cont'd. on page 12)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 12 September 2018

Revision: 12 September 2018

Trade name: Abrasive Products

(Cont'd. from page 11)

Sources
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers
SDS Prepared by: ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com