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

Printing date 23.10.2014 Revision: 23.10.2014

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

1.1 Product identifier

Trade name: BTUS; BTUS-ST; BTUS-RC; BTUS – HT; BTUS-CAL Brown Fused Aluminum Oxide
Registration number 01-2119529248-35-0141
1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture Industrial uses.

1.3 Details of the supplier of the Safety Data Sheet
Manufacturer/Supplier:
U.S. Electrofused Minerals, Inc.
600 Steel Street
Aliquippa, PA 15001
Phone: (800) 927-8823

1.4 Emergency telephone number:
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H351.


health hazard

Carc. 2 H351 Suspected of causing cancer.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
Information concerning particular hazards for human and environment:
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the Globally Harmonized System within the United States (GHS).
This product does not have a classification according to the CLP regulation.
The product is classified and labelled according to the CLP regulation.

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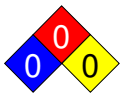
Hazard pictograms
Not applicable within the EU; applicable only for North America.

GHS08

Signal word
Not applicable within the EU; applicable only for North America.
Warning

Hazard-determining components of labelling:
titanium dioxide
Hazard statements
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H351.
H351 Suspected of causing cancer.
Precautionary statements
Applicable only within the United States (USA)
P281 Use personal protective equipment as required.
P202 Do not handle until all safety precautions have been read and understood.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard description:
WHMIS-symbols: Not hazardous under WHMIS.
NFPA ratings (scale 0 - 4)



Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = *0
Fire = 0
Reactivity = 0

HMIS Long Term Health Hazard Substances	
13463-67-7	titanium dioxide

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 1344-28-1 EINECS: 215-691-6	aluminium oxide substance with a Community workplace exposure limit	50-100%
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide (classification relevant for USA/Canada only) Carc. 2, H351	2,5-10%

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information: No special measures required.
After inhalation:
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
After skin contact:
Brush off loose particles from skin.
Clean with water and soap.
If skin irritation continues, consult a doctor.
After eye contact:
Immediately remove contact lenses if possible.
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
Coughing
Breathing difficulty
Gastric or intestinal disorders.
Hazards Danger of impaired breathing.
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: Use fire extinguishing methods suitable to surrounding conditions.
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.

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Wear fully protective suit.
Additional information No further relevant information available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use respiratory protective device against the effects of fumes/dust/aerosol.
For large spills, wear protective clothing.
Avoid formation of dust.
Ensure adequate ventilation
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.
Dispose contaminated material as waste according to item 13.
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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Prevent formation of dust.
Any unavoidable deposit of dust must be regularly removed.
Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.
Use only in well ventilated areas.
Avoid breathing dust.
Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from oxidising agents.
Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from humidity and water.
This product is hygroscopic.
7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
1344-28-1 aluminium oxide	
PEL (USA)	Long-term value: 15*; 15** mg/m³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1,0 mg/m³ respirable, as Al
EV (Canada)	Long-term value: 10 mg/m³ total dust
13463-67-7 titanium dioxide	
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 withdrawn from NIC
EL (Canada)	Long-term value: 10* 3** mg/m³ *total dust;**respirable fraction; IARC 2B
EV (Canada)	Long-term value: 10 mg/m³ total dust

DNELs No further relevant information available.
PNECs No further relevant information available.
Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid close or long term contact with the skin.
Do not inhale dust / smoke / mist.
Respiratory protection:
Suitable respiratory protective device recommended.
Use suitable respiratory protective device in case of insufficient ventilation.
For spills, respiratory protection may be advisable.
Particulate mask should filter at least 99% of airborne particles.

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Protection of hands:
Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.
Gloves are advised for repeated or prolonged contact.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Eye protection:


Safety glasses

Body protection:
Not required under normal conditions of use.
Protection may be required for spills.
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
General Information
Appearance:

Form:	Granulate
Colour:	Brown
Odour:	Odourless
Odour threshold:	Not determined.
pH-value:	Slightly alkaline
Change in condition	
Melting point/Melting range:	3704 °F / 2040 °C
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Product is not flammable.
Auto/Self-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Self-igniting:	Not determined.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.

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Density at 20 °C:	3,87 g/cm³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with water:	Insoluble.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
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.
Reacts with oxidising agents.
Reacts with strong alkali.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: Toxic metal oxide smoke

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity:
Primary irritant effect:
on the skin: No irritant effect.
on the eye: Slight irritant effect on eyes.
Sensitisation: No sensitising effects known.
Repeated dose toxicity: May cause damage to organs through prolonged or repeated exposure.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
Based on IARC classifications and not the CLP classification.
Carc. 2

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: Generally not hazardous for water

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12.2 Persistence and degradability
Inorganic product, is not eliminable from water by means of biological cleaning processes.
12.3 Bioaccumulative potential Does not accumulate in organisms.
12.4 Mobility in soil No further relevant information available.
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.
Can be reused after reprocessing.
Contact waste processors for recycling information.
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. Residual materials should be treated as hazardous.

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number	
DOT, ADR, ADN, IMDG, IATA	Not Regulated
14.2 UN proper shipping name	
DOT, ADR, ADN, IMDG, IATA	Not Regulated
14.3 Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA	
Class	Not Regulated
14.4 Packing group	
DOT, ADR, IMDG, IATA	Not Regulated
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
UN "Model Regulation":	-

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
United States (USA)
SARA

Section 355 (extremely hazardous substances):
None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

TSCA (Toxic Substances Control Act):
All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:	
13463-67-7	titanium dioxide

Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.

Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

Carcinogenic Categories

EPA (Environmental Protection Agency)
None of the ingredients are listed.

IARC (International Agency for Research on Cancer)		
13463-67-7	titanium dioxide	2B

TLV (Threshold Limit Value established by ACGIH)		
1344-28-1	aluminium oxide	A4
13463-67-7	titanium dioxide	A4

NIOSH-Ca (National Institute for Occupational Safety and Health)	
13463-67-7	titanium dioxide

Canada

Canadian Domestic Substances List (DSL)
All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%)
None of the ingredients are listed.

Canadian Ingredient Disclosure list (limit 1%)	
1344-28-1	aluminium oxide
7631-86-9	silicon dioxide, chemically prepared

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Other regulations, limitations and prohibitive regulations
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products 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
H351 Suspected of causing cancer.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (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
ACGIH: American Conference of Governmental Industrial Hygienists
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)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
Carc. 2: Carcinogenicity, Hazard Category 2

Sources
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