

BEGIN MSDS 00223720

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

(a subsidiary of Tredegar Corporation)
25 Bonnell St.
Newnan, GA 30263
(INTERNATIONAL)
770 253 2020

EMERGENCY TELEPHONE NUMBER:
(reference Tredegar Corporation)
1 800 424 9300 (NORTH AMERICA)
1 703 527 3887

SUBSTANCE: ALUMINUM EXTRUSIONS, ALUMINUM BILLETS OR LOGS

TRADE NAMES/SYNONYMS:
00223720

CHEMICAL FAMILY: metal, alloy

CREATION DATE: Sep 01 1999
REVISION DATE: Jun 14 2007

2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: ALUMINUM AS METAL
CAS NUMBER: 7429 90 5
EC NUMBER (EINECS): 231 072 3
PERCENTAGE: 90.0 99.0

COMPONENT: POLYURETHANE ADHESIVE
CAS NUMBER: Not assigned.
EC NUMBER: Not assigned.
PERCENTAGE: 0 10

COMPONENT: ZINC OXIDE
CAS NUMBER: 1314 13 2
EC NUMBER (EINECS): 215 222 5
PERCENTAGE: 0.01 5.0

COMPONENT: MAGNESIUM OXIDE
CAS NUMBER: 1309 48 4
EC NUMBER (EINECS): 215 171 9
PERCENTAGE: 0.1 1.5

COMPONENT: SILICON
CAS NUMBER: 7440 21 3
EC NUMBER (EINECS): 231 130 8
PERCENTAGE: 0.2 1.0

3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0 4): HEALTH=1 FIRE=1 REACTIVITY=0

EMERGENCY OVERVIEW:

PHYSICAL FORM: solid

MAJOR HEALTH HAZARDS: harmful if inhaled, respiratory tract irritation

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: Dust particles or fumes may cause irritation if product is subjected to an activity such as sawing, drilling, grinding, welding, buffing, etc. that generates dust or fumes.

LONG TERM EXPOSURE: Dust particles or fumes may cause irritation if product is subjected to an activity such as sawing, drilling, grinding, welding, buffing, etc. that generates dust or fumes.

SKIN CONTACT:

SHORT TERM EXPOSURE: No hazard expected.

LONG TERM EXPOSURE: No hazard expected.

EYE CONTACT:

SHORT TERM EXPOSURE: No hazard expected.

LONG TERM EXPOSURE: No hazard expected.

INGESTION:

SHORT TERM EXPOSURE: No hazard expected.

LONG TERM EXPOSURE: No hazard expected.

CARCINOGEN STATUS:

OSHA: No

NTP: No

IARC: No

4. FIRST AID MEASURES

INHALATION: It is unlikely that emergency treatment will be required. This product cannot be inhaled unless it is subjected to an activity such as sawing, drilling, grinding, welding, buffing, etc. that generates dust or fumes.

SKIN CONTACT: If cut by metal, get medical attention, if needed.

EYE CONTACT: If a piece of metal gets into the eye, get medical attention immediately.

INGESTION: If a piece of metal is swallowed, get medical attention, if needed.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: No hazard expected.

EXTINGUISHING MEDIA: No hazard expected.

FIRE FIGHTING: No hazard expected.

FLASH POINT: Not applicable

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition or combustion products: acid halides, oxides of carbon, hydrocarbons, hydrogen cyanide, oxides of nitrogen

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Pick up the metal.

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Stock piles, scrap extrusions and cuttings may create trip, slip, or fall hazards if allowed to accumulate. Keep work areas clear and orderly. Keep separated from incompatible substances.

HANDLING: Machining or tooling aluminum extrusions may create sharp edges capable of cutting or penetrating flesh. Wear gloves, eye protection, and skin protection when working with aluminum extrusions.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

ALUMINUM AS METAL:

ALUMINUM, METALLIC, POWDER (as Al):

- 5 mg/m³ OSHA TWA (respirable fraction)
- 15 mg/m³ OSHA TWA (total dust)
- 5 mg/m³ OSHA TWA (pyro powders)
- 10 mg/m³ ACGIH TWA (metal particulate)
- 5 mg/m³ ACGIH TWA (pyro powders)
- 5 mg/m³ NIOSH recommended TWA 10 hour(s) (pyro powders)
- 10 mg/m³ NIOSH recommended TWA (total)
- 5 mg/m³ NIOSH recommended TWA (respirable fraction)

MEASUREMENT METHOD: NIOSH IV # 7013, 7300, 7301, 7303; OSHA ID121

ZINC OXIDE:

- 5 mg/m³ OSHA TWA (respirable dust fraction)
- 15 mg/m³ OSHA TWA (total dust)
- 10 mg/m³ OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)
- 5 mg/m³ OSHA TWA (fume)
- 10 mg/m³ OSHA STEL (fume) (vacated by 58 FR 35338, June 30, 1993)
- 2 mg/m³ ACGIH TWA (respirable fraction)
- 10 mg/m³ ACGIH STEL (respirable fraction)
- 5 mg/m³ NIOSH recommended TWA 10 hour(s) (fume) (dust)
- 15 mg/m³ NIOSH recommended ceiling (dust)
- 10 mg/m³ NIOSH recommended STEL (fume)
- 1 mg/m³ DFG MAK (peak limitation category I, with excursion factor of 1) (respirable fraction) (fume)

MEASUREMENT METHOD: NIOSH IV # 7303, 7502; OSHA # ID121, ID143

MAGNESIUM OXIDE:

15 mg/m³ OSHA TWA (fume) (total particulate)
10 mg/m³ OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)
10 mg/m³ ACGIH TWA (inhalable fraction)
4 mg/m³ DFG MAK (inhalable fraction)
1.5 mg/m³ DFG MAK (respirable fraction)
10 mg(Mg)/m³ UK WEL TWA (total inhalable dust)
4 mg(Mg)/m³ UK WEL TWA (fume) (respirable dust)
10 mg(Mg)/m³ UK WEL STEL (fume) (respirable dust)

MEASUREMENT METHOD: NIOSH IV # 7300, 7301, 7303; OSHA # ID121

SILICON:

5 mg/m³ OSHA TWA (respirable dust fraction)
15 mg/m³ OSHA TWA (total dust)
10 mg/m³ OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)
5 mg/m³ NIOSH recommended TWA 10 hour(s) (respirable fraction)
10 mg/m³ NIOSH recommended TWA 10 hour(s) (total particulate)
10 mg/m³ UK WEL TWA (total inhalable dust)
4 mg/m³ UK WEL TWA (respirable dust)

MEASUREMENT METHOD: NIOSH IV # 0500, 0600

VENTILATION: Based on available information, additional ventilation is not required. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Use safety glasses.

CLOTHING: Wear suitable protective clothing.

GLOVES: Wear suitable gloves.

RESPIRATOR: No respirator is required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid
ODOR: Not available
BOILING POINT: Not applicable
MELTING POINT: 1099 1299 F (593 704 C)
VAPOR PRESSURE: Not applicable
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY (water=1): 2.5 2.9
WATER SOLUBILITY: insoluble
PH: Not applicable
VOLATILITY: Not applicable
ODOR THRESHOLD: Not applicable
EVAPORATION RATE: Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid generating dust or fumes.

INCOMPATIBILITIES: acids, bases, oxidizing materials

HAZARDOUS DECOMPOSITION:

Thermal decomposition or combustion products: acid halides, oxides of carbon, hydrocarbons, hydrogen cyanide, oxides of nitrogen

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

ALUMINUM AS METAL:

TOXICITY DATA: >5000 mg/kg oral rat LD50; 206 mg/m³/5 hour(s) 30 day(s) intermittent inhalation rat TCLO; 4 mg/m³/1 year(s) intermittent inhalation man TCLO

CARCINOGEN STATUS: Aluminum itself has not been evaluated by IARC. However, aluminum production has been evaluated as IARC Group 1 (Human Sufficient Evidence). There is sufficient evidence that certain exposures occurring during aluminum production cause cancer.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Alzheimer's disease, kidney disorders, respiratory disorders

REPRODUCTIVE EFFECTS DATA: 1260 mg/kg oral mouse TDLo multigenerations; 67.5 mg/kg unreported rabbit TDLo 2 27 day(s) pregnant female continuous

ADDITIONAL DATA: Elevated aluminum levels have been associated with Alzheimer's disease, neurofibrillary degeneration, and anemia.

ZINC OXIDE:

IRRITATION DATA: 500 mg/24 hour(s) skin rabbit mild; 500 mg/24 hour(s) eyes rabbit mild

TOXICITY DATA: >200 mg/L inhalation rat LC50; 500 mg/kg oral human LDLo; 600 mg/m³ inhalation human TCLO; >8437 mg/kg oral rat LD; 240 mg/kg intraperitoneal rat LD50; >4979 ug/kg intratracheal rat LD; 7950 mg/kg oral mouse LD50; 2500 mg/m³ inhalation mouse LC50; 250 mg/kg intratracheal mammal TDLo; 25 mg/m³/3 hour(s) inhalation rat TCLO; 17431 mg/kg/90 day(s) continuous oral rat TDLo; 5900 ug/m³/3 hour(s) 3 day(s) intermittent inhalation guinea pig TCLO; 4600 ug/m³/3 hour(s) 6 day(s) intermittent inhalation guinea pig TCLO; 32203 mg/kg/4 week(s) continuous oral chicken TDLo; 3584 mg/kg/4 week(s) intermittent oral domestic animal TDLo; 6468 mg/kg/1 week(s) intermittent oral chicken TDLo; 12.93 gm/kg/2 week(s) intermittent oral chicken TDLo; 25.87 gm/kg/4 week(s) intermittent oral chicken TDLo; 15 mg/m³/1 hour(s) 84 day(s) intermittent inhalation mammal TCLO

LOCAL EFFECTS:

Irritant: inhalation

ACUTE TOXICITY LEVEL:

Toxic: inhalation

Slightly Toxic: ingestion

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders

MUTAGENIC DATA: DNA adduct Escherichia coli 3000 ppm; cytogenetic analysis rat inhalation 100 ug/m³; morphological transformation hamster embryo 1 mg/L; unscheduled DNA synthesis hamster embryo 1 mg/L; sister chromatid

exchange hamster embryo 300 ug/L; unscheduled DNA synthesis guinea pig
inhalation 5300 ug/m3 3 hour(s) 6 day(s)
REPRODUCTIVE EFFECTS DATA: 6846 mg/kg oral rat TDLo 1 22 day(s) pregnant
female continuous

MAGNESIUM OXIDE:

TOXICITY DATA: 400 mg/m3 inhalation human TCLo; 4 mg/m3/12 minute(s)
inhalation mammal TCLo; 1120 ug/m3/24 hour(s) 29 day(s) continuous
inhalation rat TCLo; 1000 mg/m3/4 hour(s) 50 day(s) intermittent
inhalation rat TCLo
CARCINOGEN STATUS: ACGIH: A4 Not Classifiable as a Human Carcinogen
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders, skin
disorders, eye disorders
TUMORIGENIC DATA: 480 mg/kg intratracheal hamster TDLo/30 week(s) intermittent
ADDITIONAL DATA: Interactions with drugs may occur.

SILICON:

IRRITATION DATA: 3 mg eyes rabbit mild
TOXICITY DATA: 3160 mg/kg oral rat LD50; 500 mg/kg intraperitoneal rat LDLo
ACUTE TOXICITY LEVEL:
Moderately Toxic: ingestion
ADDITIONAL DATA: Nephrotoxicity has been demonstrated with excessive exposure
to silicon.

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:
POLYURETHANE ADHESIVE: No data available.

CHRONIC EXPOSURE:
POLYURETHANE ADHESIVE: No data available.

SKIN CONTACT:

Remove particles by thoroughly washing with soap and water.

ACUTE EXPOSURE:
POLYURETHANE ADHESIVE: No known effects.

CHRONIC EXPOSURE:
POLYURETHANE ADHESIVE: No data available.

EYE CONTACT:

Immediately flush eyes with water for at least 15 minutes.

ACUTE EXPOSURE:
POLYURETHANE ADHESIVE: May cause mechanical irritation.

CHRONIC EXPOSURE:
POLYURETHANE ADHESIVE: No data available.

INGESTION:

ACUTE EXPOSURE:
ALUMINUM, METALLIC, POWDER: Large doses may cause gastrointestinal
irritation, vomiting and diarrhea. Aluminum is poorly absorbed and may
decrease absorption of other substances. Neurotoxic effects may occur in
persons with impaired kidney function or chronic renal failure.

ZINC OXIDE: The greatest danger from ingestion may be intense gastroenteritis, with nausea, diarrhea, or constipation.

MAGNESIUM OXIDE: Magnesium salts are generally so slowly absorbed that oral administration causes nothing more than purging. If evacuation fails, mucosal irritation and absorption may occur. If ingested in sufficient quantities may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain and diarrhea. Systemically, magnesium may produce central nervous system depression, abolition of reflexes and death from respiratory paralysis.

SILICON: No data available.

CHRONIC EXPOSURE:

POLYURETHANE ADHESIVE: No data available.

12. ECOLOGICAL INFORMATION

Not available

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations. Recycle if possible.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

LAND TRANSPORT ADR: No classification assigned.

LAND TRANSPORT RID: No classification assigned.

AIR TRANSPORT IATA: No classification assigned.

AIR TRANSPORT ICAO: No classification assigned.

MARITIME TRANSPORT IMDG: No classification assigned.

15. REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):

Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):

ACUTE: Yes

CHRONIC: Yes

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65):

ALUMINUM, METALLIC, POWDER (as Al)

ZINC COMPOUNDS

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED): Not determined.

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

16. OTHER INFORMATION

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Please give us a call at 800-237-9773 if you have any further questions.