# SAFETY DATA SHEET





### **Section 1. Identification**

GHS product identifier :
Other means of :

: ALCRO Wire: Not available.

identification

. . . .

Product type : Solid.

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

Not applicable.

Supplier's details : TAFA Inc. A Praxair Surface Technologies Company

146 Pembroke Rd. Concord, NH 03301

**Emergency telephone** number (with hours of

operation)

: Emergency telephone number (with hours of operation)

### Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available

for employees and other users of this product.

Classification of the

substance or mixture

: Not classified.

**GHS label elements** 

Signal word : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

**Precautionary statements** 

Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.
Hazards not otherwise : None known.

classified

## Section 3. Composition/information on ingredients

Substance/mixture : Substance
Other means of : Not available.

identification

**CAS** number/other identifiers

CAS number : Not available.

Product code : ALCRO Wire

Ingredient name	%	CAS number
ALCRO Wire	100	-
iron	50 - 75	7439-89-6
chromium	20 - 50	7440-47-3
Aluminum	1 - 5	91728-14-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Date of issue/Date of revision	: 5/26/2015.	ALCRO Wire	1/10
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## Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

#### **Description of necessary first aid measures**

**Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Get medical attention if irritation

occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get

medical attention if symptoms occur.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position

comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

#### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

#### **Over-exposure signs/symptoms**

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

#### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**Specific treatments**: No specific treatment.

**Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training.

#### See toxicological information (Section 11)

## Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing

y

: Use an extinguishing agent suitable for the surrounding fire.

: Decomposition products may include the following materials:

**Unsuitable extinguishing** 

media

media

: None known.

Specific hazards arising from the chemical

: No specific fire or explosion hazard.

Hazardous thermal decomposition products

metal oxide/oxides

Date of issue/Date of revision : 5/26/2015. ALCRO Wire 2/10

## Section 5. Fire-fighting measures

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable

**Special protective** equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

**Environmental precautions** 

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

#### Methods and materials for containment and cleaning up

**Small spill** 

: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### Section 7. Handling and storage

#### **Precautions for safe handling**

**Protective measures** 

Advice on general occupational hygiene

- : Put on appropriate personal protective equipment (see Section 8).
- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

**Control parameters** 

Occupational exposure limits

**ALCRO Wire** Date of issue/Date of revision : 5/26/2015. 3/10

## Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
chromium	ACGIH TLV (United States, 6/2013). TWA: 0.5 mg/m³, (measured as Cr) 8 hours.
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 1 mg/m³ 8 hours.
	NIOSH REL (United States, 10/2013).
	TWA: 0.5 mg/m <sup>3</sup> 8 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 1 mg/m³, (as Cr) 8 hours.
Aluminum	ACGIH TLV (United States, 6/2013).
	TWA: 1 mg/m³ 8 hours. Form: Respirable
	fraction

# Appropriate engineering controls

**Environmental exposure** controls

- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### **Individual protection measures**

**Hygiene measures** 

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** 

: Safety eyewear complying with an approved standard should be used to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### **Skin protection**

**Hand protection** 

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products.

**Body protection** 

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** 

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

#### **Appearance**

Physical state : Solid. [Wire] Color Gray. Odor : Odorless. : Not available. **Odor threshold** : Not available. **Melting point** : Not available. **Boiling point** : Not available. Flash point Not available. **Evaporation rate** : Not available.

Date of issue/Date of revision : 5/26/2015. ALCRO Wire 4/10

ALCRO Wire

## Section 9. Physical and chemical properties

Flammability (solid, gas)

Lower and upper explosive

(flammable) limits

: Not available.

: Not available.

Vapor pressure : Not available. Vapor density : Not available. : Not available. **Relative density** 

**Solubility** : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-

octanol/water

: Not available.

**Auto-ignition temperature** : Not available. : Not available. **Decomposition temperature Viscosity** : Not available. **VOC** content : 0 lbs/gal (0 g/l)

### Section 10. Stability and reactivity

No specific test data related to reactivity available for this product or its ingredients. Reactivity

**Chemical stability** : The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

**Hazardous decomposition** 

products

: Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

## **Section 11. Toxicological information**

#### Information on toxicological effects

#### **Acute toxicity**

Not available.

### **Irritation/Corrosion**

Not available.

#### **Sensitization**

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Classification

Product/ingredient name	OSHA	IARC	NTP
chromium	-	3	-

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

**ALCRO Wire** Date of issue/Date of revision : 5/26/2015. 5/10

## Section 11. Toxicological information

Not available

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### **Aspiration hazard**

Not available.

Information on the likely routes of exposure

: Routes of entry not anticipated: Oral, Dermal, Inhalation.

#### Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

#### Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Not available.

Date of issue/Date of revision : 5/26/2015. ALCRO Wire 6/10

## **Section 12. Ecological information**

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
iron	Acute EC50 3700 μg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 33000 to 100000 μg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 6.48 μg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Chronic NOEC 100 mg/l Marine water	Algae - Glenodinium halli	72 hours
chromium	Acute EC50 0.2 ppm Marine water	Algae - Bacillariophyta	72 hours
	Acute EC50 5 ppm Marine water	Algae - Macrocystis pyrifera - Young	4 days
	Acute EC50 35000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 45 μg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 22 μg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 13.9 ppm Fresh water	Fish - Anguilla rostrata	96 hours
	Chronic NOEC 50 mg/l Marine water	Algae - Glenodinium halli	72 hours
	Chronic NOEC 0.19 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks

### Persistence and degradability

Not available.

#### **Bioaccumulative potential**

Not available.

#### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

## Section 13. Disposal considerations

### **Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-

Date of issue/Date of revision : 5/26/2015. ALCRO Wire 7/10

ALCRO Wire

# Section 14. Transport information

Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	Reportable quantity 14285.7 lbs / 6485.7 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	-	_	_		-

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in the

event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL

73/78 and the IBC Code

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Not determined.

Clean Water Act (CWA) 307: chromium

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)**  : Listed

Clean Air Act Section 602

**Class I Substances** 

: Not listed

Clean Air Act Section 602

**Class II Substances** 

: Not listed

**DEA List I Chemicals** 

(Precursor Chemicals)

: Not listed

**DEA List II Chemicals** (Essential Chemicals)

: Not listed

**SARA 302/304** 

**Composition/information on ingredients** 

No products were found.

**SARA 304 RQ** : Not applicable.

ALCRO Wire Date of issue/Date of revision 8/10 : 5/26/2015.

## Section 15. Regulatory information

#### **SARA 311/312**

Classification : Not applicable.

Composition/information on ingredients

No products were found.

#### **SARA 313**

	Product name	CAS number	%
Form R - Reporting requirements	chromium	7440-47-3	20 - 50
Supplier notification	chromium	7440-47-3	20 - 50

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

#### **State regulations**

Massachusetts: The following components are listed: CHROMIUMNew York: The following components are listed: ChromiumNew Jersey: The following components are listed: CHROMIUMPennsylvania: The following components are listed: CHROMIUM

#### **International regulations**

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### **Stockholm Convention on Persistent Organic Pollutants**

Not listed.

### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

#### **UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

#### **International lists**

#### **National inventory**

**Australia** : Not determined. Canada : Not determined. : Not determined. China : Not determined. **Europe** : Not determined. **Japan** : Not determined. Malaysia **New Zealand** : Not determined. : Not determined. **Philippines** Republic of Korea : Not determined. **Taiwan** : Not determined.

Date of issue/Date of revision : 5/26/2015. ALCRO Wire 9/10

## Section 16. Other information

#### **History**

Date of printing : 5/26/2015.

Date of issue/Date of : 5/26/2015.

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**Key to abbreviations** : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

References : Not available.

#### **Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue/Date of revision : 5/26/2015. ALCRO Wire 10/10