

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**1 Identification**

- **Product identifier**
- **Trade name: 6-6**
- **Application of the substance / the mixture** Metal working
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Carpenter Technology Corp  
PO Box 14662, Reading, PA 19612  
110 West Bern Street  
READING, PA 19601  
USA
- **Information department:** Health and Safety Department
- **Emergency telephone number:** During normal opening times: +1 (610) 208-2134

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Carc. 1A H350 May cause cancer.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
arsenic  
cobalt  
nickel
- **Hazard statements**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause cancer.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**Trade name: 6-6**

(Contd. of page 1)

- **Precautionary statements**

Wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Specific treatment (see on this label).

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

If exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If on skin: Wash with plenty of water.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## \* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

7440-33-7	tungsten	2.5-<10%
7727-37-9	nitrogen	2.5-<10%
7440-31-5	tin	2.5-<10%
7440-47-3	chromium	2.5-<10%
7429-90-5	aluminium	2.5-<10%
7440-38-2	arsenic	3-<10%
7704-34-9	sulfur	1-≤2.5%
7440-48-4	cobalt	0.1-<1%

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: 6-6

7440-02-0 nickel

(Contd. of page 2)

0.1-&lt;1%

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** The product is not flammable.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** No special measures required.
- **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.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Not applicable.
- **Information about protection against explosions and fires:** Not applicable.
- **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:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

(Contd. on page 4)

US

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: 6-6

(Contd. of page 3)

· *Specific end use(s)* No further relevant information available.

### 8 Exposure controls/personal protection

· *Additional information about design of technical systems:* No further data; see item 7.· *Control parameters*· *Components with limit values that require monitoring at the workplace:*

#### 7440-33-7 tungsten

PEL and insoluble compounds, as We

REL Short-term value: 10 mg/m<sup>3</sup>  
Long-term value: 5 mg/m<sup>3</sup>  
as WTLV Short-term value: 10 mg/m<sup>3</sup>  
Long-term value: 5 mg/m<sup>3</sup>  
as W

#### 7727-37-9 nitrogen

TLV withdrawn TLV, see App. F; simple asphyxiant

#### 7440-31-5 tin

PEL Long-term value: 2 mg/m<sup>3</sup>  
metalREL Long-term value: 2 mg/m<sup>3</sup>TLV Long-term value: 2 mg/m<sup>3</sup>  
metal

#### 7440-47-3 chromium

PEL Long-term value: 1\* 0.5\*\* mg/m<sup>3</sup>  
\*metal; \*\*inorganic compds., as CrREL Long-term value: 0.5\* mg/m<sup>3</sup>  
\*metal+inorg.compds.as Cr; See Pocket Guide App. CTLV Long-term value: 0.5 mg/m<sup>3</sup>

#### 7429-90-5 aluminium

PEL Long-term value: 15\*; 15\*\* mg/m<sup>3</sup>  
\*Total dust; \*\* Respirable fractionREL Long-term value: 10\* 5\*\* mg/m<sup>3</sup>  
as Al\*Total dust\*\*Respirable/pyro powd./welding f.TLV Long-term value: 1\* mg/m<sup>3</sup>  
as Al; \*as respirable fraction

#### 7440-38-2 arsenic

PEL Long-term value: 0.5\* 0.01\*\* mg/m<sup>3</sup>  
as As; \*organic\*\*inorg. compds.; 29 CFR 1910.1018REL Ceiling limit value: 0.002 mg/m<sup>3</sup>  
as As; 15min; See Pocket Guide App. ATLV Long-term value: 0.01 mg/m<sup>3</sup>  
as As; BEI

(Contd. on page 5)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: 6-6

(Contd. of page 4)

**7440-02-0 nickel**

PEL	Long-term value: 1 mg/m <sup>3</sup>
REL	Long-term value: 0.015 mg/m <sup>3</sup> as Ni; See Pocket Guide App. A
TLV	Long-term value: 1.5* mg/m <sup>3</sup> elemental, *inhalable fraction

· **Ingredients with biological limit values:****7440-38-2 arsenic**

BEI	35 µg As/L Medium: urine Time: end of workweek Parameter: Inorganic arsenic plus methylated metabolites (background)
-----	---

· **Additional information:** The lists that were valid during the creation were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

<b>Form:</b>	Solid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic

(Contd. on page 6)

US

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: 6-6

(Contd. of page 5)

· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b> <b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	-195 °C (-319 °F)
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	7.44437 g/cm <sup>3</sup> (62.123 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with</b> <b>Water:</b>	Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Solids content:</b>	94.5 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: 6-6

(Contd. of page 6)

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**7440-38-2 arsenic**

Oral	LD50	763 mg/kg (rat)
------	------	-----------------

**7440-48-4 cobalt**

Oral	LD50	6170 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7440-47-3	chromium	3
7440-38-2	arsenic	1
7440-48-4	cobalt	2B
7440-02-0	nickel	1

- **NTP (National Toxicology Program)**

7440-38-2	arsenic	K
7440-02-0	nickel	R

- **OSHA-Ca (Occupational Safety & Health Administration)**

7440-38-2	arsenic
-----------	---------

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms

(Contd. on page 8)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: 6-6

(Contd. of page 7)

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

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

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

7723-14-0	red phosphorus
-----------	----------------

· **Section 313 (Specific toxic chemical listings):**

7440-47-3	chromium
-----------	----------

7429-90-5	aluminium
-----------	-----------

7440-38-2	arsenic
-----------	---------

7440-62-2	vanadium
-----------	----------

(Contd. on page 9)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**Trade name: 6-6**

(Contd. of page 8)

7440-48-4	cobalt
7440-02-0	nickel
7439-96-5	manganese
7440-50-8	copper
7723-14-0	red phosphorus

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

7440-38-2	arsenic
7440-48-4	cobalt
7440-02-0	nickel

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

7440-47-3	chromium	D
7440-38-2	arsenic	A
7439-96-5	manganese	D
7440-50-8	copper	D
7723-14-0	red phosphorus	D

· **TLV (Threshold Limit Value established by ACGIH)**

7440-47-3	chromium	A4
7429-90-5	aluminium	A4
7440-38-2	arsenic	A1
7440-48-4	cobalt	A3
7440-02-0	nickel	A5

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

7440-38-2	arsenic
7440-02-0	nickel

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** Danger

(Contd. on page 10)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**Trade name: 6-6**

(Contd. of page 9)

· **Hazard-determining components of labeling:**

arsenic  
cobalt  
nickel

· **Hazard statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause cancer.

· **Precautionary statements**

Wear respiratory protection.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wear protective gloves / eye protection / face protection.  
Wear protective gloves.  
Contaminated work clothing must not be allowed out of the workplace.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Specific treatment (see on this label).  
If experiencing respiratory symptoms: Call a poison center/doctor.  
Wash contaminated clothing before reuse.  
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
If exposed or concerned: Get medical advice/attention.  
If skin irritation or rash occurs: Get medical advice/attention.  
If on skin: Wash with plenty of water.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

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

### 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.

· **Department issuing SDS:** Environment protection department.

· **Date of preparation / last revision** 06/15/2015 / 4

· **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  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
Carc. 1A: Carcinogenicity, Hazard Category 1A

· **\* Data compared to the previous version altered.**

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**1 Identification**

- **Product identifier**
- **Trade name:** DYNAMAX
- **Application of the substance / the mixture** Metal working
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Carpenter Technology Corp  
PO Box 14662, Reading, PA 19612  
110 West Bern Street  
READING, PA 19601  
USA
- **Information department:** Health and Safety Department
- **Emergency telephone number:** During normal opening times: +1 (610) 208-2134

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 1A H350 May cause cancer.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
cobalt  
arsenic  
nickel
- **Hazard statements**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause cancer.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**Trade name: DYNAMAX**

(Contd. of page 1)

**· Precautionary statements**

Wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Specific treatment (see on this label).

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If on skin: Wash with plenty of water.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**· Classification system:****· NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 0

Reactivity = 0

**· HMIS-ratings (scale 0 - 4)**

Health = \*1

Fire = 0

Reactivity = 0

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

## 3 Composition/information on ingredients

**· Chemical characterization: Mixtures****· Description:** Mixture of the substances listed below with nonhazardous additions.**· Dangerous components:**

7440-48-4	cobalt	2.5-<10%
7440-31-5	tin	2.5-<10%
7429-90-5	aluminium	2.5-<10%
7440-38-2	arsenic	3-<10%
7440-47-3	chromium	2.5-<10%
7727-37-9	nitrogen	2.5-<10%
7704-34-9	sulfur	1-≤2.5%
7440-33-7	tungsten	0.1-≤2.5%
7440-44-0	carbon	0.1-≤2.5%

(Contd. on page 3)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 2)

7440-02-0 nickel

0.1-&lt;1%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** The product is not flammable.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** No special measures required.
- **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.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Not applicable.
- **Information about protection against explosions and fires:** Not applicable.
- **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:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

(Contd. on page 4)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 3)

· *Specific end use(s)* No further relevant information available.

## 8 Exposure controls/personal protection

· *Additional information about design of technical systems:* No further data; see item 7.· *Control parameters*· *Components with limit values that require monitoring at the workplace:***7440-48-4 cobalt**

PEL Long-term value: 0.1\* mg/m<sup>3</sup>  
as Co; \*for metal dust and fume

REL Long-term value: 0.05 mg/m<sup>3</sup>  
as Co; metal dust & fume

TLV Long-term value: 0.02; NIC - 0.02\* mg/m<sup>3</sup>  
BEI; \*hard metals:thoracic ;NIC-A2,RSEN;as W

**7440-31-5 tin**

PEL Long-term value: 2 mg/m<sup>3</sup>  
metal

REL Long-term value: 2 mg/m<sup>3</sup>

TLV Long-term value: 2 mg/m<sup>3</sup>  
metal

**7429-90-5 aluminium**

PEL Long-term value: 15\*; 15\*\* mg/m<sup>3</sup>  
\*Total dust; \*\* Respirable fraction

REL Long-term value: 10\* 5\*\* mg/m<sup>3</sup>  
as Al\*Total dust\*\*Respirable/pyro powd./welding f.

TLV Long-term value: 1\* mg/m<sup>3</sup>  
as Al; \*as respirable fraction

**7440-38-2 arsenic**

PEL Long-term value: 0.5\* 0.01\*\* mg/m<sup>3</sup>  
as As; \*organic\*\*inorg. compds.; 29 CFR 1910.1018

REL Ceiling limit value: 0.002 mg/m<sup>3</sup>  
as As; 15min; See Pocket Guide App. A

TLV Long-term value: 0.01 mg/m<sup>3</sup>  
as As; BEI

**7440-47-3 chromium**

PEL Long-term value: 1\* 0.5\*\* mg/m<sup>3</sup>  
\*metal;\*\*inorganic compds., as Cr

REL Long-term value: 0.5\* mg/m<sup>3</sup>  
\*metal+inorg.compds.as Cr;See Pocket Guide App. C

TLV Long-term value: 0.5 mg/m<sup>3</sup>

**7727-37-9 nitrogen**

TLV withdrawn TLV, see App. F; simple asphyxiant

(Contd. on page 5)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 4)

**7440-33-7 tungsten**

PEL *and insoluble compounds, as We*

REL *Short-term value: 10 mg/m<sup>3</sup>*  
*Long-term value: 5 mg/m<sup>3</sup>*  
*as W*

TLV *Short-term value: 10 mg/m<sup>3</sup>*  
*Long-term value: 5 mg/m<sup>3</sup>*  
*as W*

**7440-02-0 nickel**

PEL *Long-term value: 1 mg/m<sup>3</sup>*

REL *Long-term value: 0.015 mg/m<sup>3</sup>*  
*as Ni; See Pocket Guide App. A*

TLV *Long-term value: 1.5\* mg/m<sup>3</sup>*  
*elemental, \*inhalable fraction*

**· Ingredients with biological limit values:****7440-48-4 cobalt**

BEI *15 µg/L*  
*Medium: urine*  
*Time: end of shift at end of workweek*  
*Parameter: Cobalt (background)*

*1 µg/L*  
*Medium: blood*  
*Time: end of shift at end of workweek*  
*Parameter: Cobalt (background, semi-quantitative)*

**7440-38-2 arsenic**

BEI *35 µg As/L*  
*Medium: urine*  
*Time: end of workweek*  
*Parameter: Inorganic arsenic plus methylated metabolites (background)*

· **Additional information:** *The lists that were valid during the creation were used as basis.*

· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

*Keep away from foodstuffs, beverages and feed.*  
*Immediately remove all soiled and contaminated clothing.*  
*Wash hands before breaks and at the end of work.*

· **Breathing equipment:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.*

· **Protection of hands:**

Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*  
*Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

(Contd. on page 6)

US

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 5)

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

- **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

- **Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

- **Eye protection:**



Safety glasses

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Solid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	2362 °C (4284 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not determined.

- **Ignition temperature:**

**Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

- **Vapor pressure:** Not applicable.

- **Density at 20 °C (68 °F):** 6.96008 g/cm<sup>3</sup> (58.082 lbs/gal)

- **Relative density** Not determined.

- **Vapour density** Not applicable.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

**Water:** Insoluble.

(Contd. on page 7)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 6)

- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not applicable.
  - Kinematic:** Not applicable.
- **Solvent content:**
  - Organic solvents:** 0.0 %
- **Solids content:** 96.0 %
- **Other information** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

7440-48-4 cobalt

Oral LD50 6170 mg/kg (rat)

7440-38-2 arsenic

Oral LD50 763 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

- **Sensitization:**
- Sensitization possible through inhalation.
- Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7440-48-4	cobalt	2B
7440-38-2	arsenic	I
7440-47-3	chromium	3
7440-02-0	nickel	I

(Contd. on page 8)

US

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 7)

· <b>NTP (National Toxicology Program)</b>		
7440-38-2	arsenic	K
7440-02-0	nickel	R
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
7440-38-2	arsenic	

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 3 (Self-assessment): extremely hazardous for water  
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
 Danger to drinking water if even extremely small quantities leak into the ground.  
 Also poisonous for fish and plankton in water bodies.  
 Toxic for aquatic organisms*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- |                                     |               |
|-------------------------------------|---------------|
| · <b>UN-Number</b>                  |               |
| · <b>DOT, ADN, IMDG, IATA</b>       | not regulated |
| · <b>UN proper shipping name</b>    |               |
| · <b>DOT, ADN, IMDG, IATA</b>       | not regulated |
| · <b>Transport hazard class(es)</b> |               |
| · <b>DOT, ADN, IMDG, IATA</b>       | not regulated |
| · <b>Class</b>                      | not regulated |

(Contd. on page 9)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

Trade name: DYNAMAX

(Contd. of page 8)

- |  |                 |
|--|-----------------|
| <b>· Packing group</b>   |                 |
| <b>· DOT, IMDG, IATA</b>   | not regulated   |
| <b>· Environmental hazards:</b>  |                 |
| <b>· Marine pollutant:</b>   | No              |
| <b>· Special precautions for user</b>  | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>  | -               |

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

<b>· Section 355 (extremely hazardous substances):</b>	
--	--

7723-14-0	red phosphorus
-----------	----------------

<b>· Section 313 (Specific toxic chemical listings):</b>	
--	--

7440-48-4	cobalt
-----------	--------

7429-90-5	aluminium
-----------	-----------

7440-38-2	arsenic
-----------	---------

7440-47-3	chromium
-----------	----------

7440-62-2	vanadium
-----------	----------

7439-96-5	manganese
-----------	-----------

7440-02-0	nickel
-----------	--------

7440-50-8	copper
-----------	--------

7723-14-0	red phosphorus
-----------	----------------

<b>· TSCA (Toxic Substances Control Act):</b>	
---	--

All ingredients are listed.	
-----------------------------	--

<b>· Proposition 65</b>	
-------------------------	--

<b>· Chemicals known to cause cancer:</b>	
---	--

7440-48-4	cobalt
-----------	--------

7440-38-2	arsenic
-----------	---------

7440-02-0	nickel
-----------	--------

<b>· Chemicals known to cause reproductive toxicity for females:</b>	
--	--

None of the ingredients is listed.	
------------------------------------	--

<b>· Chemicals known to cause reproductive toxicity for males:</b>	
--	--

None of the ingredients is listed.	
------------------------------------	--

<b>· Chemicals known to cause developmental toxicity:</b>	
---	--

None of the ingredients is listed.	
------------------------------------	--

(Contd. on page 10)

US

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**Trade name: DYNAMAX**

(Contd. of page 9)

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

7440-38-2	arsenic	A
7440-47-3	chromium	D
7439-96-5	manganese	D
7440-50-8	copper	D
7723-14-0	red phosphorus	D

· **TLV (Threshold Limit Value established by ACGIH)**

7440-48-4	cobalt	A3
7429-90-5	aluminium	A4
7440-38-2	arsenic	A1
7440-47-3	chromium	A4
7440-02-0	nickel	A5

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

7440-38-2	arsenic
7440-02-0	nickel

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

cobalt  
arsenic  
nickel

· **Hazard statements**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.  
May cause cancer.

· **Precautionary statements**

Wear respiratory protection.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wear protective gloves.  
Contaminated work clothing must not be allowed out of the workplace.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Specific treatment (see on this label).  
If experiencing respiratory symptoms: Call a poison center/doctor.  
Wash contaminated clothing before reuse.  
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
If exposed or concerned: Get medical advice/attention.  
If skin irritation or rash occurs: Get medical advice/attention.  
If on skin: Wash with plenty of water.  
Store locked up.

(Contd. on page 11)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2015

Reviewed on 06/12/2015

**Trade name: DYNAMAX**

(Contd. of page 10)

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

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

## 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.*

· **Department issuing SDS:** Environment protection department.

· **Date of preparation / last revision** 06/15/2015 / 3

· **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*

*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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1*

*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*


*Carc. 1A: Carcinogenicity, Hazard Category 1A*

· **\* Data compared to the previous version altered.**

US

# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME:  
 **LATROBE SPECIALTY  
STEEL COMPANY**

LATROBE, PENNSYLVANIA 15650-0031  
(724) 537-7711

TRADE NAME: DOUBLE SIX (M2)

GRADE SPECIFICATION DATE:

07/11/2012

MSDS REVISION DATE 02/2001

## II. HAZARDOUS INGREDIENTS

<u>MATERIAL OR COMPONENT</u>	<u>CAS NO</u>	<u>PERCENT</u>	<u>OSHA PEL Mg/M<sup>3</sup></u>	<u>ACGIH TLV Mg/M<sup>3</sup></u>
*CHROMIUM	7440-47-3	4.4	1	.50 *
IRON	1309-37-1	81.0	10.0	5
MOLYBDENUM	7439-98-7	5.3	15.0 TOTAL DUST 5.0 RESP. FRACT	10
*NICKEL	7440-02-0	.4	1.0	1 *
*VANADIUM	1314-62-1	2.1	0.5 (DUST) 0.1 (FUME)	.05 *
TUNGSTEN	7440-33-7	6.8	5.0	5

\* REGULATED AS A TOXIC CHEMICAL UNDER SECTION 313, SARA TITLE III AND 40 CFR 372.

## III. PHYSICAL DATA

BOILING POINT:	≥ 5000 °F	MELTING POINT:	Approximately 2500 °F
SPECIFIC GRAVITY (H <sub>2</sub> O=1):	Approx. 7.8-8.2 (60 °F)	VAPOR PRESSURE:	N/A
VAPOR DENSITY (AIR=1):	N/A	SOLUBILITY IN H <sub>2</sub> O:	Insoluble
% VOLATILES BY VOLUME:	N/A	EVAPORATION (BUTYLACETATE=1):	N/A
APPEARANCE AND ODOR:	Various Shapes, Solid Odorless Metal		

## IV. FIRE AND EXPLOSION DATA

FLASH POINT:	None	FIRE POINT:	None
--------------	------	-------------	------

## V. HEALTH HAZARD INFORMATION

WE DO NOT CONSIDER THIS PRODUCT IN THE FORM IT IS SOLD TO CONSTITUTE A PHYSICAL HAZARD OR A HEALTH HAZARD. SUBSEQUENT OPERATIONS SUCH AS ABRADING, MELTING, WELDING, CUTTING OR PROCESSING IN ANY OTHER FASHION THAT CAUSES A RELEASE OF DUST OR FUME MAY CAUSE SOME OF THE INGREDIENTS TO CHANGE TO A FORM WHICH COULD AFFECT EXPOSED WORKERS.

**CARCINOGENICITY:**

	<b>NTP</b>	<b>IARC MONOGRAPHS</b>	<b>OSHA REGULATED</b>
CHROMIUM (Cr)	YES	YES	YES, PEL established
NICKEL (Ni)	YES	YES	YES, PEL established

**VI. REACTIVITY DATA**

STABILITY:	Chemically Stable
INCOMPATIBILITY:	Reacts with Strong Acids to Generate Hydrogen Gas
HAZARDOUS DECOMPOSITION PRODUCTS:	Metallic Oxides

**VII. SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL:	N/A
WASTE DISPOSAL METHOD:	Solids -- Sale as Scrap Dust, etc. -- Follow Federal, State and Local Regulations Regarding Disposal

**VIII. SPECIAL PROTECTION INFORMATION**

VENTILATION REQUIREMENTS:	General -- Recommended. Local -- As Required.
PERSONAL PROTECTIVE EQUIPMENT:	
Respiratory Protection:	If fumes, misting or dust condition occurs and TLV as indicated in Section II is exceeded, provide NIOSH approved respirators.
Eye Protection:	Recommended.
Gloves:	As required.
Other Clothing or Equipment:	As required.

**IX. SPECIAL PRECAUTIONS**

USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUSTS AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM.



**PRIMARY ROUTES OF ENTRY:**  
Inhalation - Eye Contact - Skin Contact -  
Ingestion

**EMERGENCY FIRST AID:**  
Remove to fresh air, if condition continues - consult physician  
Flush well with running water to remove particulate. Get medical attention.  
Brush off excess dust. Wash area well with soap and water.  
Seek medical help if large quantities of material have been ingested.

**EFFECTS OF OVEREXPOSURE:**

**ACUTE:** Short term overexposure to the dust, fumes and/or oxides of certain components of steel products may cause irritation of the eyes, nose or throat, or, may result in metal fume fever characterized by a metallic or sweet taste, dryness and irritation of the throat, wheezing, discoloration of the tongue and flu-like symptoms.

**CHRONIC:** Excessive and prolonged overexposure to the dust fumes and/or oxides of certain components of steel products may result in chronic interstitial pneumonitis, discoloration of the skin and hair; allergic bronchitis, neoplasms or loss of coordination and balance.

REFER TO PAGE 2 FOR THE EFFECTS OF OVEREXPOSURE TO SPECIFIC ELEMENTS.

**EFFECTS OF OVEREXPOSURE CONT'D.:**

**ACUTE:**

CARBON (C) -- Irritation of eyes and mucous membranes.

MANGANESE (Mn) -- Irritation of eyes, nose, and throat; metallic taste in the mouth; acute pneumonia and pneumonitis (respiratory disease).

IRON (Fe) -- Irritation of eyes, nose and throat; metal fume fever.

CHROMIUM (Cr) -- Irritation of eyes and mucous membranes, dermatitis, skin ulcers and nasal septum perforation.

NICKEL (Ni) -- Irritation of eyes and mucous membranes, dermatitis, "nickel itch", pulmonary edema, asthma, headache and vomiting.

MOLYBDENUM (Mo) -- Irritation of eyes and mucous membranes.

VANADIUM (V) -- As vanadium pentoxide dust or fumes, it may cause irritation of eyes, nose and respiratory tract.

ALUMINUM (Al) -- Possible irritation of eyes and mucous membranes.

COBALT (Co) -- Irritation of eyes and mucous membranes.

COPPER (Cu) -- Irritation of eyes, nose and throat; metal fume fever.

BORON (B) -- Irritation of nose and throat.

TANTALUM (Ta) -- Dust may cause slight irritation to eyes, nose and throat.

TITANIUM (Ti) -- Considered a physiologically inert dust; however, high concentrations may cause irritation of eyes and mucous membranes.

TUNGSTEN (W) -- No adverse health effects have been reported in humans.

**CHRONIC:**

CARBON (C) -- Irritation of eyes and mucous membranes.

MANGANESE (Mn) -- Inhalation of fumes and dust can cause central nervous system disturbances, increased upper respiratory disorders and infections, cumulative lung damage, psychiatric disorders, liver cirrosis and anemia.

IRON (Fe) -- Inhalation of iron oxide fumes and dust may cause chronic bronchitis, conjunctivitis, choroiditis, retinitis and siderosis of tissues.

CHROMIUM (Cr) -- The toxicity and health hazards of chromium are heavily dependent upon its oxidation state. Trivalent and devalent chromium, as in chromium

metal and chromium-containing alloys have a low order of toxicity. The hexavalent form (chromates and chromic acids) may cause irritant and allergic contact dermatitis, skin ulcers and nasal irritation varying from rhinitis to perforation of the nasal septum. Reported carcinogen.

NICKEL (Ni) -- Nickel dust or fume can cause sensitization dermatitis, "nickel itch", and may cause cancer of the paranasal sinuses and lungs.

MOLYBDENUM (Mo) -- Human industrial poisoning by molybdenum has yet to be reported.

VANADIUM (V) -- As vanadium pentoxide dust or fumes, it may cause irritation of eyes, nose and respiratory tract (More severe than acute exposure), chronic bronchitis and allergic skin rash.

ALUMINUM (Al) -- Possible irritation of eyes and mucous membranes. Reported as a cause of pulmonary fibrosis.

COBALT (Co) -- May cause allergic skin rashes and respiratory disease.

COPPER (Cu) -- Skin irritation; discoloration of the skin or the hair and metal fume fever.

BORON (B) -- Possible irritation of the respiratory tract and nose bleeds.

TANTALUM (Ta) -- Dust may be slight irritant to eyes, nose and throat.

TITANIUM (Ti) -- Considered a physiologically inert dust; however, high concentrations may cause irritation of eyes and mucous membranes.

TUNGSTEN (W) -- No adverse health effects have been reported in humans.



**CARCINOGENICITY:**

	<b>NTP</b>	<b>IARC MONOGRAPHS</b>	<b>OSHA REGULATED</b>
CHROMIUM (Cr)	YES	YES	YES, PEL established
NICKEL (Ni)	YES	YES	YES, PEL established

**VI. REACTIVITY DATA**

STABILITY:	Chemically Stable
INCOMPATIBILITY:	Reacts with Strong Acids to Generate Hydrogen Gas
HAZARDOUS DECOMPOSITION PRODUCTS:	Metallic Oxides

**VII. SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL:	N/A
WASTE DISPOSAL METHOD:	Solids -- Sale as Scrap Dust, etc. -- Follow Federal, State and Local Regulations Regarding Disposal

**VIII. SPECIAL PROTECTION INFORMATION**

VENTILATION REQUIREMENTS:	General -- Recommended. Local -- As Required.
PERSONAL PROTECTIVE EQUIPMENT:	
Respiratory Protection:	If fumes, misting or dust condition occurs and TLV as indicated in Section II is exceeded, provide NIOSH approved respirators.
Eye Protection:	Recommended.
Gloves:	As required.
Other Clothing or Equipment:	As required.

**IX. SPECIAL PRECAUTIONS**

USE GOOD HOUSEKEEPING PRACTICES TO PREVENT ACCUMULATIONS OF DUSTS AND TO KEEP AIRBORNE DUST CONCENTRATIONS AT A MINIMUM.