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MATERIALS SAFETY

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: NA
CAS No. NA
Common Name/Trade Name: Lance Pipe
Company Name: Oxylance Inc.
Company Address: 2501 27th Street North Birmingham, AL 35234
Date Updated: January 30, 2014

2. HAZARDOUS INGREDIENTS

CHEMICAL NAME/COMMON NAME	(CAS No.)	%	Exposure Limits	
			ACGIH TLV (mg/m3)	OSHA PEL (mg/m3)
BASE METAL				
IRON	7439896	99 max	as Iron Oxide Fume 5	10
ALLOYING ELEMENTS				
CARBON	7440440	0.08-0.18 0.30 – 0.60 (dust)	-- 5.0	-- 5 (C)
MANGANESE	7439965		11.0 (fume)	5 (C) (fume)
PHOSPHORUS	7723140	0.015-0.035 (yellow)	0.1	0.1
as Sulfur Dioxide				
SULFUR	7704349	0.02 max 0.02 max (dust)	5.2 --	13.0 15.0 (Total)
SILICON	7440213	(respirable fraction) 0.02-0.07 (dust)	-- 10.0	5.0 (Respirable) 15.0
ALUMINUM	7429905		5.0 (fume)	5.0
		0.10 max (dust)	1.0	1.0
COPPER	7440508		0.2 (fume)	0.1 (fume)
NICKEL	7440020	0.06 max	1.0	1.0
CHROMIUM	7440473	0.05 max	0.5	1.0
MOLYBDENUM	7439987	0.05 max	10.0	15.0
NFPA	Health = 1	Fire = 0	Reactivity = 0	

3. PHYSICAL DATA

Boiling Point: N/A
Vapor Pressure (mm Hg): N/A
Vapor Density (Air = 1): N/A
Solubility in Water: Insoluble
Specific Gravity: N/A
Melting Point: N/A
Evaporation Rate (Butyl Acetate=1): N/A
Appearance and Odor: Metallic gray, no noticeable odor

4. HEALTH HAZARD DATA

Primary Route(s) of Entry: (In the Form of Dust and/or Fumes Only)
Inhalation? YES
Skin? YES
Ingestion? NO
*UV Exposure? YES while welding
Carcinogenicity: NIF
NTP
IARC YES
OSHA Regulated YES

ACUTE EFFECTS OF OVEREXPOSURE:

EYES:	Local Irritation, reddish brown pigment can result
SKIN:	Local Irritation, sunburned type of result
INHALATION:	Excessive exposure to fume may cause a sweet or metallic taste in the mouth, immediate dryness and irritation of the throat, tightness of the chest, and coughing. Several hours later, symptoms may progress to fever, malaise, perspiration, frontal headache, muscle cramps, low back pain, occasionally blurred vision, nausea, and vomiting. Pulmonary congestion, shortness of breath and symptoms of oxygen deficiency may also develop.
INGESTION:	Not expected to be acutely toxic via ingestion based on the physical and chemical properties of the product. Swallowing of excessive amounts of the dust may cause irritation, nausea, and diarrhea.
EXPOSURE TO UV:	Exposure to UV Radiation can result in kerato-conjunctivitis, also known as welders flash. Symptoms include inflammation, blurred vision, and headache.

CHRONIC EFFECTS OF EXPOSURE:

GENERAL	Repeated exposure to fine dusts may inflame the nasal mucosa and cause changes to the lung. In addition, a red-brown pigmentation of the eye and/or skin may occur. Welding fumes have been associated with adverse health effects. Contains components that may cause cancer or reproductive effects. The following components are listed by: NTP, OSHA, or IARC as carcinogens: Nickel, chromium (hexavalent), lead, and cadmium.
SKIN:	Dusts or particulates may cause mechanical irritation due to abrasion. Coated steel may cause skin irritation in sensitive individuals. Some components in this product are capable of causing an allergic reaction, possibly resulting in burning, itching and skin eruptions. Contact with heated material may cause thermal burns.
INHALATION:	Repeated over-exposure may cause prolonged forms of metal fume fever, Overexposure to copper can affect the liver. Chronic exposure to manganese dusts or fumes is associated with "manganism", a Parkinson-like syndrome.

Toxicity Information:	Breathing fumes or dusts of this product may result in metal fume fever, which is an illness produced by inhaling metal oxides. These oxides are produced by heating various metals; including cadmium, zinc, copper, manganese, lead, chromium, aluminum, and iron. The most common agents involved are zinc and copper. Long-term exposure to iron dusts or fumes can result in a condition called siderosis, which is considered to be a benign pneumoconiosis. Prolonged and repeated overexposure to chromium dusts or fumes may cause skin ulcers, nasal irritation and ulceration, kidney damage and cancer of the respiratory system. Copper dust and fumes can irritate the eyes, nose and throat. These irritations can cause coughing, wheezing, nosebleeds; ulcers and metal fume fever. Overexposure to copper can affect the liver. Prolonged exposure to manganese dusts or fumes is associated with "manganism", a Parkinson-like syndrome characterized by a variety of neurological symptoms including muscle spasms, gait disturbances, tremors, and psychoses.
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Job Task Data	Job task data extrapolated over an eight hour TWA. Testing procedures used worst-case scenarios.	
	<u>"Surecut":</u>	<u>"Burn Bar":</u>
	Copper 0.39 mg/m3	Copper 1.66 mg/m3
	Chromium 0.099 mg/m3	Chromium 0.19 mg/m3
	Iron Oxide 95.5 mg/m3	Iron Oxide 126.22 mg/m3
	Manganese 0.32 mg/m3	Manganese 0.623 mg/m3

Medical Conditions Aggravated by Exposure:

Diseases of the skin such as eczema may be aggravated by exposure. Also, disorders of the respiratory system including asthma, bronchitis, and emphysema.

Emergency and First and Procedures:

EYE CONTACT:	In case of overexposure to dusts or fumes, immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the eyelids. Get medical attention if irritation persists. Thermal burns should be treated as medical emergencies
SKIN CONTACT:	In case of overexposure to dusts or particulates, wash with soap and plenty of water. Get medical attention if irritation develops or persists. If thermal burn occurs, flush area with cold water and get immediate medical attention.
INHALATION:	In case of overexposure to dusts or fumes, remove to fresh air. Get immediate medical attention if symptoms described in this MSDS develop.
INGESTION:	Not considered an ingestion hazard. However, if excessive amounts of dust or particulates are swallowed, treat symptomatically and supportively. Get medical attention.

NOTES TO
PHYSICIAN:

Inhalation of metal fume or metal oxides may produce an acute febrile state, with cough, chills, weakness, and general malaise, nausea, vomiting, muscle cramps, and remarkable leukocytosis. Treatment is symptomatic, and condition is self limited in 24-48 hours. Chronic exposure to dusts may result in pneumoconiosis of mixed type.

5. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): NONE

Flammable Limits: N/A

LEL N/A

UEL N/A

Extinguishing MEDIA: N/A

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: Oil and greases on torches can cause a violent reaction in the presence of oxygen.

6. REACTIVITY DATA

Stability: ☐ Unstable
☒ Stable

Conditions To Avoid: Allowing gases to be trapped in confined spaces.

Incompatibility (Materials to Avoid): Oil and greases on torch can cause a violent reaction in the presence of unburned oxygen.

Hazardous Decomposition or By Products

Hazardous Polymerization: ☐ Will Occur

Conditions to Avoid: NA

☒ Will Not Occur

7. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled: N/A

Waste Disposal Method: Comply with all local, state and federal regulations for proper disposal

8. SPECIAL PROTECTION INFORMATION

Exposure Controls	Operations with potential for generating high concentrations of airborne particulates or fumes should be evaluated and controlled as necessary.
Ventilation:	Local exhaust ventilation should be provided when welding, burning, sawing, brazing, grinding or machining to mitigate excessive dust or fume exposure.
Respiratory Protection:	Air purifying respirator if area is unventilated, local exhaust not available other protection maybe required if it is oxygen deficient environment or IDLH conditions.
Protective Gloves:	Aluminized Kevlar
Eye Protection:	See OSHA Subpart Q Guidelines for Lens Shades per different activities
Other Protective Equipment:	Depending upon workplace conditions and methods of use, specific equipment and/or clothing may be required to control exposures. Fire resistant overalls or aprons should be worn when using this product. Also sunscreen should be applied to exposed areas.

9. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Warning – Keep away from oil and grease.

Other Precautions: Other hazards can be created based on material being cut e.g., vapors released from residue while cutting.

10. OTHER INFORMATION

REGULATORY INFORMATION:

This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dusts and fumes from this product may be hazardous. This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, dusts and fumes from this product may be combustible or hazardous and require protection to comply with applicable Federal, state and local laws and regulations.

CALIFORNIA PROPOSITION 65:

This product contains chemicals such as chromium, cobalt, cadmium, lead, nickel known to the State of California to cause cancer and chemicals (cadmium, lead) known to the State of California to cause birth defects or other reproductive harm.

REGULATORY LISTS:

Some components of this product may be specifically listed by individual states; other product-specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

Components of this product are listed on the TSCA Inventory.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA):

Steel is not reportable, however, it contains hazardous substances that may be reportable if released in pieces with diameters less than or equal to 0.004 inches (RQ marked with a "**").

Chemical Name	Reportable Quantity (in lb)
Antimony	5000*
Arsenic	1*
Beryllium	10*
Cadmium	10*
Chromium	5000
Copper	5000*
Lead	10*
Nickel	100*
Phosphorus	1*
Selenium	100*
Zinc	1000*

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), Title III:

SECTION 311/312 HAZARD CATEGORIES: Immediate Health Effect, Delayed Health Effect This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right – To – Know Act of 1986 (40 CFR 372):

SECTION 313 REPORTABLE INGREDIENTS:

Chemical Name	CAS Number	Concentration (% by wt)	Reportable
Aluminum	7429-90-5	<4.0	Yes – Greater than 1%
Arsenic	7440-38-2	<0.09	No – Less than 0.1%
Beryllium	7440-43-9	<0.09	No – Less than 0.1%
Cadmium	7440-47-3	<0.09	No – Less than 0.1%
Chromium	7440-48-4	0.01-1.0	No – Less than 1%
Copper	7440-50-8	<0.09	Yes – Greater than 0.1%
Lead	7439-92-1	<0.9	No – Less than 0.1%
Manganese	7439-96-5	<0.05	No – Less than 1%
Nickel	7440-02-0	0.2-2	No – Less than 0.1%
Zinc	7440-66-6	<0.9	No – Less than 1%

Concentrations based on analytical data and process knowledge provided by OxyLance, Inc.

Use proper procedure at all times as specified by the following:

1. Your Company's Safe Practices Manual
2. OSHA 1910 Subpart Q, Cutting and Welding Regulations
3. ANSI/AWS F4.1 Recommended Safe Practices for Cutting, American Society, P.O. Box 351040, Miami, FL 33135
4. ANSI Z49.1 Safety in Welding and Cutting
5. Other applicable references

ABBREVIATIONS

NA – Not Applicable

NE – Not Established

NL – Not Listed

NIF – No Information Found