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Date:	4/8/99	MSDS No.: L	JS-M515
Superse	des:	3/1/96	
Trade Name:		Stable-Arc	7018
Sizes:		All	

## MATERIAL SAFETY DATA SHEET

For Welding Consumables and Related Products

Conforms to Hazard Communication Standard 29CFR 1910.1200 Rev. October 1988 

Aanufacture Supplier:	r/ The Lincoln Electric Company 22801 St. Clair Avenue	Product Type:	Wash-Coated Electrode			
	22801 St. Clair Avenue Cleveland, OH 44117-1199 (216) 481-8100	Classification:	None (formerly A			
		-HAZARDOU	S MATERIAT	.s () -		
IMPO This se normal CAS Nu CAS Nu The ter Standa	R T A N T ! ction covers the materials from which th use of this product are covered by Sect umber shown is representative for the in m 'hazardous' in 'Hazardous Materials' s rd and does not necessarily imply the ex	is product is manufacture ion V; see it for industria gredients listed. All ingr hould be interpreted as a listence of any hazard.	d. The fumes and gas hygiene information. edients listed may not term required and de	es produced be present in fined in the H	during welding all sizes. azards Commu	with the
Ingredients		<u>, i john se - e e jujune adampe para ila ara juan se arj e</u>	CAS No.	Wt.%	TLV mg/m <sup>3</sup>	PEL mg/m <sup>3</sup>
and the second	d/or calcium carbonate		1317-65-3	< 0.5	10	15
	other carbohydrates		65996-61-4	< 0.5	10*	10*
Carbon st	eel core wire		7439-89-6	100	10*	10*
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maximum is 10 milligrams per cubic meter. PEL value for iron oxide is 10 mg/m3. TLV value for iron oxide is 5 milligrams per cubic meter.

SECTION III - FIRE AND EXPLOSION HAZARD DATA

Non Flammable; Welding arc and sparks can ignite combustibles and flammable products. See Z49.1 referenced in Section VI.

(CONTINUED ON SIDE TWO)

		1	4 - Extreme					
Date:	Stable-Arc 4/8/99		Flammability 3 - High 2 - Moderate Health Reactivity 1 0					
<u>Duto.</u>			Special 1 - Slight					
		: 	Hazards 0 - Insignificant • - See Text					
	SECTION IN - HEA							
Threshold Limit Value: The ACGIH recommended general limit for Welding Fume NOC - (Not Otherwise Classified) is 5 mg/m <sup>3</sup> . ACGIH-1987-88 preface states that the TLV-TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations. See Section V for specific fume constituents which may modify this TLV. Threshold Limit Values are figures published by the American Conference of Government Industrial Hygienists. Units are milligrams per cubic meter of air.								
Effects of Overexposure: Electric arc welding may create one or more of the following health hazards: Fumes and Gases can be dangerous to your health. Common entry is by inhalation. Other possible routes are skin contact and ingestion.								
Short-term (acute) overexposure to welding fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema).								
	oryness or initiation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. astima, emphysicina).							
	Long-term (chronic) overexposure to welding fumes can lead to function. Manganese overexposure can affect the central nerv Bronchitis and some lung fibrosis have been reported. WA fumes or gases which contain chemicals known to the State of (California Health & Safety Code Section 25249.5 et seq).	o siderosis (iron deposit ous system, resulting in RNING: This product, w f California to cause birth	s in lung) and may affect pulmonary impaired speech and movement. hen used for welding or cutting, produces h defects and, in some cases, cancer.					
Electric S as sitting DC Weld	Arc Rays can injure eyes and burn skin. Skin cancer has been shock can kill. If welding must be performed in damp locations I, kneeling or lying, if there is a high risk of unavoidable or accid er, DC Manual (Stick) Welder, or AC Welder with Reduced Voltag	reported. or with wet clothing, on lental contact with workp ge Control.	metal structures or when in cramped positions such piece, use the following equipment: Semiautomatic					
Emergen	cy and First Aid Procedures: Call for medical aid. Employ first IF BREATHING IS DIFFICULT give oxygen. IF NOT BREATHING IN CASE OF ELECTRICAL SHOCK, turn off power and follow re	aid techniques recomme 3 employ CPR (Cardiopu commended treatment	ended by the American Red Cross. Imonary Resuscitation) techniques. In all cases call a physician.					
		EACTIVETY B	ATAS AND A LAND AND A LAND					
Hazardo	ous Decomposition Products: Welding fumes and gases contract the metal being welded, the process, procedure and ele	annot be classified simp ctrodes used.	ly. The composition and quantity of both are					
Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating, or galvanizing), the number of welders and the volume of the worker area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities.)								
When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section II. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in Section II, plus those from the base metal and coating, etc., as noted above.								
	Reasonably expected fume constituents of this product would include: Primarily iron oxide; secondarily complex oxides of manganese and silicon.							
	Maximum fume exposure guideline and PEL for this product is	s 5.0 milligrams per cub	ic meter.					
Gaseous from the	reaction products may include carbon monoxide and carbon di arc.	oxide. Ozone and nitrog	gen oxides may be formed by the radiation					
Determine the composition and quantity of fumes and gases to which workers are exposed by taking an air sample from inside the welder's helmet if worn or in the worker's breathing zone. Improve ventilation if exposures are not below limits. See ANSI/AWS F1.1, F1.2, F1.4, and F1.5, available from the American Welding Society, 550 N.W. LeJeune Road, Miami, FL 33126.								
all all all and a second second	ONTROL MEASURES AND PRECAU		AFE HANDLING AND USE					
Read and understand the manufacturer's instruction and the precautionary label on the product. Request Lincoln Safety Publication E205. See American National Standard Z49.1, 'Safety in Welding and Cutting' published by the American Welding Society, 550 N.W. LeJeune Road, Miami, FL, 33126 and OSHA Publication 2206 (29CFR1910), U.S. Government Printing Office, Washington, D.C. 20402 for more details on many of the following:								
Ventilation: Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases from the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes. Keep exposure as low as possible.								
Respiratory Protection: Use respirable fume respirator or air supplied respirator when welding in confined space or general work area when local exhaust or ventilation does not keep exposure below TLV.								
Eye Protection: Wear helmet or use face shield with filter lens shade number 12 or darker. Shield others by providing screens and flash goggles.								
Protective Clothing: Wear hand, head, and body protection which help to prevent injury from radiation, sparks and electrical shock. See Z49.1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to permit electrically live parts or electrodes to contact skin or clothing or gloves if they are wet. Insulate from work and ground.								
Disposa accordin	Il Information: Discard any product, residue, disposable cont g to Federal, State and Local Regulations unless otherwise note	ainer, or liner as ordinar d.	y waste in an environmentally acceptable manner					

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