

WELCO 55

MATERIAL SAFETY DATA SHEET

01/11/00

MSDS PROVIDED BY:
STOODY INDUSTRIAL AND WELDING SUPPLY, INC.
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WELCO 55

SECTION 1

PRODUCT IDENTIFICATION

COMPANY NAME WHO SENT MSDS..... HARRIS WELCO, DIV. OF J.W. HARRIS CO., INC.
COMPANY ADDRESS..... 1051 YORK ROAD
KINGS MOUNTAIN, NC 28086
EMERGENCY PHONE NUMBER..... (800)-424-9300
MSDS VERSION NUMBER 1
TRADE NAME WELCO 55 - COPPER BASE ALLOY COVERED WELDING ELECTRODES
HAZARD RATING (HMIS)..... NA
HMIS DESIGNATION KEY NA

SECTION 2

HAZARDOUS COMPONENTS

<u>MATERIAL</u>	<u>% BY WEIGHT</u>	<u>CAS NUMBER</u>	<u>ACGIH TLV (Mg/M3)</u>	<u>SEC 313</u>
METALLIC MATERIAL,				
ALUMINUM (METAL) **	0-20	7429-90-5	10	NA
ALUMINUM (WELDING FUME)**	0-20	7429-90-5	5	NA
COBALT (DUST & FUME)*	0-3	7440-48-4	0.05	NA
COPPER (FUME) *	50-100	7440-50-8	0.2	NA
COPPER (DUST & MIST)*	50-100	7440-50-8	1.0	NA
IRON (IRON OXIDE FUME AS FE)	0-6	7439-89-6	5	NA
MANGANESE (DUST & COMPOUNDS)*	0-14	7439-96-5	5	NA
MANGANESE (FUME)*	0-14	7439-96-5	1	NA
NICKEL (METAL & INSOL COMP.) *	0-32	7440-02-0	1	NA
NICKEL (SOLUBLE COMPOUNDS) *	0-32	7440-02-0	0.1	NA
SILICON (TOTAL DUST)	0-1	7440-21-3	10	NA
TIN	0-1	7440-31-5	2	NA
COATING MATERIAL:				
SODIUM SILICATE	26.9	6834-92-0	NONE	NA
CRYOURTE (AS FLUORIDE)	51	15096-52-3	2.5 MG/M3	NA
PETROLEUM COKE	1.8	64743-05-1	NONE	NA
MAGNESITE	5.1	S46-93-0	NONE	NA
SILICA SAND	3.2	7631-86-9	0.1 MG/M3	NA
FELDSPAR	2.7	NA	NONE	NA

SECTION 3

PHYSICAL PROPERTIES

BOILING POINT NA
MELTING POINT NA
VAPOR PRESSURE NA
VAPOR DENSITY (AIR = 1) NA
SOLUBILITY IN WATER..... INSOLUBLE
SPECIFIC GRAVITY NA
EVAPORATION RATE..... NA
APPEARANCE AND ODOR SILVER-GREY, YELLOW OR REDDISH COLOR WITH NO ODOR.

SECTION 4

FIRE AND EXPLOSION DATA

FLASH POINT NA
EXTINGUISHING MEDIA SEE BELOW
SPECIAL PROCEDURES..... SOLID FORM-NOT COMBUSTIBLE USE METHODS APPROPRIATE FOR SURROUNDING FIRF SMALL CHIPS, FINE TURNINGS, & DUST MAY IGNITE READILY. USE COARSE WATER SPRAY ON SAME. DO NOT USE HALOGENATED AGENTS. DUST CLOUDS MAY BE EXPLOSIVE. PREVENT FORMATION OF SAME. MOLTEN METALS MAY EXPLODE ON CONTACT WITH WATER & REACT VIOLENTLY WITH WATER, RUSH, & METAL OXIDES.
UNUSUAL HAZARDS.....

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REACTIVITY DATA

STABILITY	STABLE UNDER NORMAL CONDITIONS.
CONDITIONS TO AVOID	MOLTEN METAL MAY REACT VIOLENTLY WITH H ₂ O. AVOID CONTACT OF FINELY DIVIDED MATERIAL WITH HEAT, OXIDIZERS, ACIDS, ALKALIES, MOLTEN LITHIUM, AND HALOGENATED COMPOUNDS
HAZARDOUS POLYMERIZATION.....	WILL NOT OCCUR
CONDITIONS TO AVOID	NA
INCOMPATIBILITY	ACIDS, BASES AND OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS.....	METAL FUME.

SECTION 6

HEALTH HAZARD DATA

ROUTES OF ENTRY	INHALATION, SKIN, INGESTION
HEALTH HAZARDS	CHRONIC EXPOSURE TO ALUMINUM MAY CAUSE PULMONARY FIBROSIS, AND HAS BEEN IMPLICATED IN ALZHEIMER'S DISEASE. COBALT MAY CAUSE HYPERSENSITIZATION TYPE DERMATITIS. MAY BE ASSOCIATED WITH PNEUMOCONIOSIS. FUMES OF COPPER MAY CAUSE METAL FUME FEVER. HAIR AND SKIN DISCOLORATION, KERATINIZATION OF HANDS AND FEET, IRRITATION OF UPPER RESPIRATORY TRACT METALLIC TASTE IN MOUTH, AND NAUSEA. CHRONIC POISONING MAY CAUSE WILSON'S DISEASE. INHALATION OF IRON OXIDE FUMES MAY CAUSE PNEUMOCONIOSIS OR SIDEROSIS. CHRONIC MANGANESE POISONING MAY RESULT FROM INHALATION OF DUST AND FUMES. MANGANESE FUMES HAVE CAUSED FEVER AND CHILLS. NICKEL CONTACT CAN CAUSE "NICKEL ITCH" NICKEL COMPOUNDS MAY BE HUMAN CARCINOGENS. SILICON DIOXIDE, SILICA MAY CAUSE PULMONARY FIBROSIS AND SILICOSIS ON CHRONIC EXPOSURE. INHALATION OF INORGANIC TIN FUMES OR DUST MAY CAUSE BENIGN PNEUMOSCONIOSIS CALLED STANNOSIS.
CARCINOGENICITY	
SIGNS & SYMPTOMS OF EXPOSURE	
MEDICAL CONDITIONS FROM EXPOSURE	
EMERGENCY & FIRST AID.....	EYES-FLUSH WITH WATER. CALL PHYSICIAN. SKIN-VACUUM OFF EXCESS DUST. WASH WITH SOAP AND WATER. INHALATION - REMOVE TO FRESH AIR. CALL PHYSICIAN. INGESTION - SEEK MEDICAL ATTENTION IF LARGE QUANTITIES OF MATERIAL HAVE BEEN INGESTED.
ADDITIONAL INFORMATION.....	NA

SECTION 7

PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURES	IF LARGE QUANTITIES OF DUST ARE SPILLED, REMOVE BY VACUUMING OR WET SWEEPING TO PREVENT HEAVY CONCENTRATIONS OF AIRBORNE DUST. FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS CONCERNING DISPOSAL OF WASTE
WASTE AND DISPOSAL METHOD.....	DISPOSE OF IN ACCORDANCE TO FEDERAL, STATE AND LOCAL REGULATIONS. CLEANUP PERSONNEL SHOULD WEAR RESPIRATORS AND PROTECTIVE CLOTHING.
HANDLING AND STORING PRECAUTIONS	STORE MATERIAL AWAY FROM INCOMPATIBLE MATERIALS AND KEEP DUST FROM SOURCES OF IGNITION.
OTHER PRECAUTIONS	SEE ALL OTHER SECTIONS OF THIS MSDS.

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SECTION 8**CONTROL MEASURES**

RESPIRATORY MEASURES	IF EXPOSURE ABOVE THE PEL OR TLV. NIOSH APPROVED RESPIRATOR FOR FUME OR DUST, DEPENDENT UPON SOURCE OF AIRBORNE CONTAMINANT,
VENTILATION	REQUIRED IF DUST OR FUME CREATED IN HANDLING OR WORKING ON THIS MATERIAL LOCAL EXHAUST REQUIRED FOR SAME. MECHANICAL EXHAUST AS ABOVE TO REDUCE AIRBORNE DUST OR FUME LEVELS.
PROTECTIVE GLOVES.....	REQUIRED FOR WELDING OPERATIONS. SELECT GLOVE APPROVED FOR SPECIFIC OPERATION.
EYE PROTECTION	REQUIRED FOR WELDING OPERATIONS. MINIMUM REQUIREMENTS INCLUDE SPECIAL EYE PROTECTION SUCH AS FACE SHIELDS FOR GRINDING AND WELDING HELMET DURING WELD OPERATIONS.
OTHER PROTECTIVE EQUIPMENT	USE LEATHER OR EQUAL PROTECTIVE GLOVES AND BODY CLOTHING WHILE WELDING.
WORK/HYGIENIC PRACTICES	USE EAR MUFFS OR PLUGS IF NOISE LEVEL IS ABOVE 90 dBA.

SECTION 9**DISCLAIMER**

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WELCO MAKES NO WARRANTY TO AND DISCLAIMS ALL LIABILITY FROM RELIANCE.

SECTION 10**ADDITINAL INFORMATION**

NA = NOT APPLICABLE

WARNING - THE USE OF THESE WELDING RODS MAY CREATE FUMES IN THE BREATHING ZONES OF WORKERS. BE CERTAIN TO EVALUATE THE LEVELS OF METAL FUMES FOR THESE WORKERS AND ALWAYS USE APPROVED (NIOSH) RESPIRATORS WHERE NECESSARY.

*THIS CONSTITUENT, A TOXIC CHEMICAL, MAKES THIS PRODUCT SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CRF PART 372. QUANTITY THRESHOLD FOR THIS CHEMICAL, BELOW WHICH REPORTING OF RELEASES IS NOT REQUIRED, IS 25,000 POUNDS FOR 1989 AND SUBSEQUENT YEARS.

**THESE CONSTITUENTS ARE REPORTABLE ONLY IF IN THE FORM OF DUST OR FUME.