

***** MATERIAL SAFETY DATA SHEET *****

Version Date.....10/13/10

CUT ROD

Print Date.....10/20/10

SECTION 1

PRODUCT IDENTIFICATION

COMPANY NAME WHO SENT MSDS..... HARRIS PRODUCTS GROUP
 COMPANY ADDRESS..... 4501 QUALITY PLACE
 MASON, OHIO 45040
 (513) 754-2000
 EMERGENCY PHONE NUMBER..... (800)-424-9300
 MSDS VERSION NUMBER..... 2
 TRADE NAME..... HARRIS PRODUCTS GROUP CUT ROD

HAZARD RATING (HMIS)..... NA

HMIS DESIGNATION KEY..... NA

SECTION 2

HAZARDOUS COMPONENTS

MATERIAL	% BY WEIGHT	CAS NUMBER	OSHA PEL	ACGIH TLV (Mg/M3)	SEC 313
IRON	65-85	7439-89-6		10 AS Fe2O3	NA
MANGANESE	1-5.0	7439-96-5		1	YES
SILICON	1-5.0	7440-21-3		3 AS SiO2	NA
TITANIUM DIOXIDE	1-15	13463-67-7		10	NA
CALCIUM CARBONATE	1-5	1317-65-3		10	NA
SILICON DIOXIDE	1-5	7631-86-9		3	NA
POTASSIUM TITANATE	0-3	12030-97-6		10	NA
SODIUM TITANATE	0-2	12034-34-3		10	NA
FELDSPAR	0-3	68476-25-5		2	NA
IRON OXIDE	0-5	1309-38-2		10 AS Fe2O3	NA
GRAPHITE	0-5	7782-42-5		5	NA
ALUMINUM OXIDE	0-2	1344-28-1		10	YES
POTASSIUM SILICATE	0-5	1312-76-1		5	NA
SODIUM SILICATE	0-5	1344-09-8		5	NA
CELLULOSE	.5-10	9004-34-6		10	NA

SECTION 3

PHYSICAL PROPERTIES

BOILING POINT..... NA
 MELTING POINT..... NA
 VAPOR PRESSURE..... NA
 VAPOR DENSITY (AIR = 1)..... NA
 SOLUBILITY IN WATER..... NA
 SPECIFIC GRAVITY..... NA

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SECTION 3

PHYSICAL PROPERTIES

CONT'D

EVAPORATION RATE..... NA
APPEARANCE AND ODOR..... METAL ROD COATED-NO ODOR

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SECTION 4

FIRE AND EXPLOSION DATA

FLASH POINT..... NA
EXTINGUISHING MEDIA..... SEE BELOW
SPECIAL PROCEDURES..... SEE BELOW
UNUSUAL HAZARDS..... WELDING ARC AND SPARKS CAN IGNITE COMBUS-
TIBLES AND FLAMMABLES. REFER TO AMERICAN
NATIONAL STANDARD Z49.1 FOR FIRE PREVEN-
TION DURING THE USE OF WELDING AND ALLIED
PROCEDURES

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SECTION 5

REACTIVITY DATA

STABILITY..... STABLE
CONDITIONS TO AVOID..... NONE UNLESS OTHERWISE SPECIFIED
HAZARDOUS POLYMERIZATION..... NA
INCOMPATIBILITY..... NA
HAZARDOUS DECOMPOSITION PRODUCTS THE COMPOSITION AND QUALITY OF WELDING
FUMES AND GASES ARE DEPENDENT UPON THE
METAL BEING WELDED, THE PROCESS, PROCEDURE
AND ELECTRODES USED. OTHER CONDITIONS
WHICH ALSO INFLUENCE THE COMPOSITION AND
QUANTITY OF FUMES AND GASES TO WHICH
WORKERS MAY BE EXPOSED INCLUDE: COATINGS
ON METAL BEING WELDED (SUCH AS PAINT,
PLATING, OR GALVANIZING), THE NUMBER OF
WELDERS AND VOLUME OF THE WORK AREA, THE
QUALITY AND AMOUNT OF VENTILATION, THE
POSITION OF WELDER'S HEAD WITH RESPECT TO
FUME PLUME, AND THE PRESENCE OF CONTAMIN-
ANTS IN ATMOSPHERE (CHLORINATED HYDRO-
CARBON VAPORS FROM CLEANING AND DEGREASING
ACTIVITIES). WHEN ELECTRODE IS CONSUMED,
THE FUME AND GAS DECOMPOSITION PRODUCTS
GENERATED ARE DIFFERENT IN PERCENT AND
FORM FROM INGREDIENTS IN SECTION 2. FUME
AND GAS DECOMPOSITION PRODUCTS, AND NOT
INGREDIENTS IN ELECTRODE, ARE IMPORTANT.
CONCENTRATION OF GIVEN FUME OR GAS COMPON-
ENT MAY DECREASE OR INCREASE BY MANY TIMES
ORIGINAL CONCENTRATION. NEW COMPOUNDS IN
ELECTRODE MAY FORM. DECOMPOSITION PRO-
DUCTS OF NORMAL OPERATION INCLUDE THOSE
ORIGINATING FROM VOLATILIZATION, REACTION,
OR OXIDATION OF MATERIALS IN SECTION 2,
PLUS THOSE FROM BASE METAL AND COATING,
ETC., AS NOTED ABOVE. REASONABLY EXPECTED

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SECTION 5

REACTIVITY DATA

CONT'D

FUME CONSTITUENTS OF PRODUCT COULD INCLUDE
PRIMARILY OXIDES OF IRON; SECONDARILY
OXIDES OF MANGANESE, SILICON AND ALUMINUM.

GASEOUS REACTION PRODUCTS MAY INCLUDE
CARBON MONOXIDE AND CARBON DIOXIDE. OZONE
AND NITROGEN OXIDES MAY BE FORMED BY THE
RADIATION FROM THE ARC. ONE WAY TO DETER-
MINE COMPOSITION AND QUANTITY OF FUMES &
GASES TO WHICH WORKERS ARE EXPOSED IS TO
TAKE AIR SAMPLES FROM INSIDE THE WELDER'S
HELMET OR IN WORKER'S BREATHING ZONE. SEE
AWS F1.1 AND AWS F1.2

1985 AVAILABLE FROM THE AMERICAN WELDING
SOCIETY. SEE AWS PUBLICATION: "FUMES AND
GASES IN THE WELDING ENVIRONMENT".
HAZARDOUS POLYMERIZATOIN NOT APPLICABLE.

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SECTION 6

HEALTH HAZARD DATA

ROUTES OF ENTRY..... NA
HEALTH HAZARDS..... ELECTRIC ARC-WELDING MAY CREATE: FUMES
AND GASES CAN BE DANGEROUS. ARC RAYS CAN
INJURE EYES AND BURN SKIN. ELECTRIC SHOCK
CAN KILL.

CARCINOGENICITY..... NA
SIGNS & SYMPTOMS OF EXPOSURE.... SEE BELOW.
MEDICAL CONDITIONS FROM EXPOSURE SHORT TERM TO WELDING FUMES-DIZZINESS,
NAUSEA, DRYNESS & IRRITATION OF NOSE, EYES
THROAT, CHEST TIGHTNESS, FEVER, ALLERGIC
REACTION. LONG TERM-SIDEROSIS, BELIEVED
TO AFFECT PULMONARY FUNCTION.

EMERGENCY & FIRST AID..... NICKEL AND CHROMIUM COMPOUNDS ARE REQUIRED
BY OSHA TO BE CONSIDERED CARCINOGENIC.
REMOVE TO FRESH AIR, OBTAIN MEDICAL ATTEN-
TION. EMPLOY FIRST AIR TECHNIQUES RECOM-
MENDED BY AM. RED CROSS.

ADDITIONAL INFORMATION..... NA

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SECTION 7

PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL AND LEAK PROCEDURES..... NA

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SECTION 7

PRECAUTIONS FOR SAFE HANDLING AND USE

CONT'D

WASTE AND DISPOSAL METHOD..... PREVENT WASTE FROM CONTAMINATING SURROUND-
ING ENVIRONMENT. DISCARD ANY PRODUCT
RESIDUE, DISPOSABLE CONTAINER OR LINER IN
ENVIROMNMENTALLY ACCEPTABLE MANNER, IN FULL
COMPLIANCE WITH FEDERAL, STATE, AND LOCAL
REGULATIONS.

HANDLING AND STORING PRECAUTIONS USE EXHAUST SYSTEM. MAKE SURE INHALED AIR
DOES NOT CONTAIN FUME CONSTITUENTS ABOVE
PERMISSIBLE EXPOSURE LEVELS. OTHER PRE-
CAUTIONS FOR ADDITIONAL SAFETY INFORMATION
ON WELDING AND CUTTING, SEE AMERICAN
STANDARD Z49.1-1983, SAFETY IN WELDING AND
CUTTING, AND THE WELDING HANDBOOK, VOL. 1,
CHAPTER 9, SAFE PRACTICES IN WELDING AND
CUTTING, BOTH AVAILABLE FROM AM WELDING
SOCIETY INC., 550 N.W. LEJNUE RD.,

OTHER PRECAUTIONS..... PO BOX 351040, MIAMI, FL 33135. PHONE
305-443-9353.
NA

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SECTION 8

CONTROL MEASURES

RESPIRATORY MEASURES..... USE RESPIRABLE FUME RESPIRATORY OR AIR
SUPPLIED RESPIRATOR WHEN IN CONFINED SPACE
OR LOCAL EXHAUST DOES NOT KEEP EXPOSURE
BELOW RECOMMENDED EXPOSURE LIMIT

VENTILATION..... USE ENOUGH LOCAL VENTILATION, AND LOCAL EX-
HAUST AT ARC TO KEEP FUMES AND GASES FROM
WORKER'S BREATHING ZONE AND GENERAL AREA.
TRAIN WORKER TO KEEP HEAD OUT OF FUMES

PROTECTIVE GLOVES..... SEE OTHER PROTECTIVE EQUIPMENT

EYE PROTECTION..... WEAR HELMET, FACE SHIELD WITH FILTER LENS,
PROTECTIVE SCREENS, FLASH GOGGLES TO
SHIELD OTHERS. START WITH SHADE TOO DARK
THEN GO TO LIGHTER SHADE WHICH GIVES SUFF-
ICIENT VIEW OF WELD ZONE.

OTHER PROTECTIVE EQUIPMENT..... HAND, HEAD, BODY PROTECTION TO PREVENT IN-
JURY FROM RADIATION, SPARKS AND ELECTRICAL
SHOCK. DO NOT TOUCH LIVE ELECTRICAL PARTS
AND INSULATE FROM WORK AND GROUND.

WORK/HYGIENIC PRACTICES..... FOR MAXIMUM SAFETY: BE CERTIFIED FOR, AND
WEAR A RESPIRATOR AT ALL TIMES WHEN
WELDING OR BRAZING.

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SECTION 9

DISCLAIMER

THIS DATA IS BELIEVED TO BE ACCURATE. HARRIS WELC

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SECTION 10

ADDITIONAL INFORMATION

NA = NOT AVAILABLE

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SECTION 11

ADDITIONAL INFORMATION