

172-029

**Safety Data Sheet**  
**\*89-250-885/B\*/C****SECTION 1 - PRODUCT IDENTIFICATION AND USE**

PRODUCT IDENTIFIER: ARCAIR AIR CARBON ARC ELECTRODES

CATALOG NUMBERS: 20-, 22-, 24-, 35 series 21

PRODUCT USE: Arc metal removal

MANUFACTURERS NAME: VICTOR TECHNOLOGIES

STREET ADDRESS: 2800 Airport Road

CITY: Denton STATE: Texas

PREPARED BY: Terry Fulks

DATE PREPARED: October 31, 1990

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DATE REVISED: September 1, 2015

**SECTION 2 - HAZARDOUS INGREDIENTS**

HAZARDOUS INGREDIENTS	%/RANGE	CAS NUMBER	OSHA PEL	ACGIH TLV
Graphite, Synthetic	66-88*	7782-42-5	--	2mg/m3
Graphite, Natural	66-88*	7782-42-5	15 mppcf	2mg/M3
Copper	10-30	7440-50-8	0.1mg/M3	0.1mg/M3 (fume)
Carbon Black	2-4	1333-86-4	3.5mg/m3	3.5mg/m3

Note: Information for Welding Fume 5mg/M3

HEALTH AND PHYSICAL HAZARDS ASSOCIATED WITH AIR CARBON ARC ELECTRODES ARE ATTRIBUTABLE TO THE FUMES GENERATED WHEN THE ELECTRODES ARE USED AND CONSUMED.

Quantative analysis detected no trace of cadmium or mercury.

**SECTION 3 - COMPOSITION**

THIS PRODUCT DOES [X] DOES NOT [ ] CONTAIN TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.

CAS NUMBER

7440-50-8

CHEMICAL NAME

Copper

%

&lt;30

THIS INFORMATION MUST BE INCLUDED IN ALL SDSs THAT ARE COPIED AND DISTRIBUTED FOR THIS PRODUCT.

\*BATCH PERCENTAGES VARY GREATLY DEPENDING UPON AVAILABILITY.

**SECTION 4 - EMERGENCY AND FIRST AID PROCEDURES**

Remove to fresh air. If breathing impaired, assisted respiration may be required. Treat U.V. exposure similar to severe sunburn, seek medical attention.

**SECTION 5 - FIRE AND EXPLOSION DATA**

FLAMMABILITY: Yes [ ] No [X] IF YES, MEANS OF EXTINCTION: Not Flammable

FLASHPOINT (F/C) AND METHOD: N/A FLAMMABLE LIMIT: N/A

LEL: N/A UEL: N/A UNUSUAL FIRE AND EXPLOSION HAZARDS: None

N.F.P.A. RATING SYSTEM: 0 - INSIGNIFICANT; 1 - SLIGHT; 2 - MODERATE; 3 - HIGH; 4 - EXTREME

Health = 1

Flammability = 0

Reactivity = 0

Special = none

WHMIS CLASSIFICATION: CLASS "D"

DIVISION 2

SUB-DIVISION "B"

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

LEAK AND SPILL PROCEDURE: Sweep or pick up. Be alert to "hot ends."

WASTE DISPOSAL METHOD: Solid landfill if local regulations allow

**SECTION 7 - HANDLING AND STORAGE**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in dry area.

Electrodes exposed to moisture may explode violently if used. Dry moist rods by baking at 300 degrees Fahrenheit for ten hours.

OTHER PRECAUTIONS: Read and understand "American National Standard Z49.1"; subpart Q of OSHA 29 CFR 1910.252; "Safety in Welding and Cutting" by the American Welding Society. CAUTION: Use in confined areas can result in carbon monoxide poisoning/death. Air supplied respirator is recommended when used indoors.

**SECTION 8 - EXPOSURE CONTROL MEASURES**

RESPIRATORY PROTECTION: Air supplied or fume respirator should be used if ventilation is insufficient GLOVES: Welders RESPIRATOR: See above

EYE: Face shield or welders helmet with #12 or darker lens FOOTWEAR: Suitable for metal working CLOTHING: Dark, substantial, aprons, etc. OTHER: See Z49.1

VENTILATION: Local exhaust as required to reduce fumes generated by each specific application below ACGIH TLV. MECHANICAL: See Ventilation

OTHER: Air sampling to determine corrective measures WORK/HYGIENIC PRACTICES: Operator trained to avoid electrical shock and U.V. ray exposure.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE: Solid ODOR AND APPEARANCE: No notable odor, copper coated black rod VAPOR PRESSURE(mm Hg): N/A VAPOR DENSITY(air=1): N/A

EVAPORATION RATE: N/A BOILING POINT (F/C): N/A FREEZING POINT (F/C):

N/A pH: N/A SPECIFIC GRAVITY: N/A SOLUBILITY: Not Soluble

Cadmium Content: ND Lead Content: ND Mercury Content: ND Chromium Content: ND

**SECTION 10 - STABILITY AND REACTIVITY DATA**

CHEMICAL STABILITY: Yes ☒ No ☐ IF NO, CONDITIONS TO AVOID: N/A

INCOMPATIBILITY WITH OTHER SUBSTANCES: Yes ☐ No ☒ IF YES, WHICH ONES?

None known HAZARDOUS POLYMERIZATION: Will Occur ☐ Will Not Occur ☒

CONDITIONS TO AVOID: N/A HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of copper fume (ozone, nitrogen oxide from the electric arc and U.V. rays)

**SECTION 11 - TOXICOLOGY INFORMATION**

ROUTE OF ENTRY: SKIN CONTACT ☐ SKIN ABSORPTION ☐ EYE CONTACT ☐  
INHALATION ☒ INGESTION ☐ U.V. EXPOSURE ☒

EFFECTS OF ACUTE/CHRONIC EXPOSURE TO PRODUCT: FUME: Bronchitis, lung deposits and tissue damage which may be irreversible. Exposure to ultra-violet arc rays can result in keratoconjunctivitis, causing inflammation, blurred vision, headache - "sunburn."

TOXICITY: CARBON: Intravenous mouse; LD50: 440 Mg/Kg, COPPER(fume): Human, Oral LDLo: 120ug/Kg

REPRODUCTION: CARBON - Subcutaneous rat; TDLo: 167Mg/Kg (8D preg); COPPER - Oral, Rat; TDLo: 1520ug/Kg (22w pre) TDLo: 1210ug/Kg (35w pre)\*

CARCINOGENICITY: Not Currently Listed SIGNS AND SYMPTOMS OF EXPOSURE:

Breathing difficulty, headache, nausea, dryness or irritation of nose, throat, eyes. Burning sensation of skin or eyes. Unconsciousness.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory problems, erythmas.

**SECTION 12 - ECOLOGICAL INFORMATION**

There is no useful information about the environmental influence at the present.

**SECTION 13 - DISPOSAL INFORMATION**

Packaging and Electrode stubs must be disposed of in accordance with local, state and federal environmental regulations.

**SECTION 14 - TRANSPORTATION INFORMATION**

No special requirements are necessary in transporting these products.  
DOT HAZARD CLASS: NOT REQUIRED

**SECTION 15 - REGULATORY INFORMATION**

No specific regulations apply.

**SECTION 16 - OTHER INFORMATION**

N/A: NON APPLICABLE; N.Av.: NOT AVAILABLE; N.Est.: NOT ESTABLISHED

**REFERENCES:**

"Chemical Guide to OSHA Hazard Communication Standard" First Edition  
"Handbook of Toxic and Hazardous Chemicals and Carcinogens" Second Edition  
"Registry of Toxic Effects of Chemical Substances"  
"NIOSH Pocket Guide to Chemical Hazards" June 1994

THIS DATA IS OFFERED IN GOOD FAITH AS TYPICAL VALUES. THIS IS NEITHER AN EXPRESSED NOR IMPLIED PRODUCT SPECIFICATION. RECOMMENDED HANDLING PROCEDURES AND HYGIENE ARE BELIEVED TO BE ACCURATE, HOWEVER, THESE RECOMMENDATIONS SHOULD BE REVIEWED IN THE SPECIFIC CONTEXT OF INTENDED USE AND DETERMINED APPROPRIATE BY THE USER.