MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200 and Superfund Amendments and Reauthorization Act (SARA) of 1986 Public Law 99-499, Standard should be consulted for specific requirements.

SECTION I IDENTIFICATION)

MANUFACTURERS: HIGH PERFORMANCE PRODUCTS **EMERGENCY PHONE:** 815-985-0441
SUPPLIERS NAME: 1220 SHAPPERT DRIVE
MACHESNEY PARK, IL 61115

PRODUCT NAME: **HPP 89**

PRODUCT CLASSIFICATION: **Welding Aid (Heat Sink)**

SECTION II (HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

IMPORTANT: This section covers the materials of which the products are manufactured. The fumes and gases produced during normal use of these products is covered in Section V. The term "Hazardous" in "Hazardous Material" should not be interpreted as a term required and defined in OSHA Hazard Communication Standard (29 CFR 1910.1200). The chemicals or compounds subject to reporting under Title III, in Section 313, of the Superfund Amendments and Reauthorization Act (SARA) are marked by the symbol #.

WARNING: This product contains or produces a chemical known to the State of California to cause birth defects (or other reproductive harm) and cancer. (California Health & Safety Code 25249.5 et seq.)

		EXPOSURE LIMIT (mg/m^3)		
INGREDIENTS	CAS Number	OSHA PEL	ACGIH TLV	PERCENT INGREDIENTS (by weight)
Cellulose	9004-34-6	5	10	7 - 13
Sodium Chloride	7647-14-5	n.a.	n.a.	10 - 30
Mica	12001-26-2	20 mppcf	3	10 - 30
Water	7732-18-5	n.a.	n.a.	30 - 60

Balance: Other propietary ingredients that are non-toxic or carcinogenic and are claimed as trade secrets.
mppcf = million of particles per cubic foot of air

SECTION III (PHYSICAL DATA) -- NOT APPLICABLE

SECTION IV (FIRE AND EXPLOSION HAZARD DATA)

Non-Flammable: Welding arc and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention during welding. These products shipped are nonhazardous, nonflammable, nonexplosive, and nonreactive.
Rating under National Fire Protection 704: Health, O; Flammability, O; Reactivity, O.

SECTION V (REACTIVITY DATA)

When used as intended to hold material in place for welding or brazing, the fumes generated cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedure, and the electrodes used. 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 work area, the quality and the amount of ventilation, 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 product is consumed, the fume and gas decomposition products are different in percent and form the ingredients listed in Section II. Fume and gas decomposition products, not the ingredients in the electrode, are important. Decomposition products include those originating from the volatilization, reaction, or oxidation of the materials shown in Section II plus those from the base metal, coating, etc. as noted above. These components are virtually always present as complex oxides and not as metals (Characterization of Arc Welding Fume: American Welding Society). Reasonably expected fume constituents of the fume could include: complex oxides of iron oxide.
Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may also be formed by radiation from the arc. Monitor fume levels. One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet if worn, or in the worker's breathing zone (see ANSI/AWS F1.1 of the American Welding Society. P.O.Box 351040, Miami, FL 33135.

Section VI (HEALTH HAZARD DATA)

Threshold Limit Value: The **ACGIH** and **OSHA** have set the exposure level for welding fumes at 5 mg/m³. The **ACGIH** 1984-85 preface states: "The TLV-TWA should be used as guides in the control of health hazards and should not be used as firm lines between safe and dangerous concentrations". See Section V for specific fume constituents which may modify this TLV.

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. **PRIMARY ROUTES OF ENTRY** are the respiratory system, eyes, and/or skin. **PREEXISTING respiratory** or allergic conditions may be aggravated in some individuals. **SHORT TERM (ACUTE) OVEREXPOSURE** to welding fumes may result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat, or eyes. **IRON, IRON OXIDE, MANGANESE-** Remove from overexposure and apply artificial respiration if needed. **LONG TERM (CHRONIC) OVEREXPOSURE** may lead to siderosis (iron deposits in lungs)and is believed by some investigators to affect pulmonary functions. **PRIMARY ROUTE OF ENTRY** is the respiratory system. **IRON, IRON OXIDE-Long** term overexposure to iron fumes can cause deposits of iron in the lungs (siderosis). Lungs will clear in time when exposure to iron and its compounds ceases. **MANGANESE-** Long term exposure may lead to "Manganism". Central nervous system is affected and symptoms include muscular weakness and tremors. Exposed workers should get quarterly medical examinations for manganism. **WELDING FUMES**: Welding fumes (not otherwise classified) are considered to be carcinogenic defined with no further categorization by **NIOSH. ARC RAYS** can injure eyes. **ELECTRIC SHOCK** can kill. See Section VII.

Emergency & First Aid Procedures: In all cases, call for medical aid. Employ first aid techniques recommended by The American Red Cross.

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, begin artificial respiration. If no detectable pulse, begin external heart massage.

SKIN: Wash affected area with soap and water.

EYES: Flush with large amounts of fresh water for at least 15 minutes.

INGESTION: Seek medical attention.

Carcinogenicity When Present	NTP	IARC Monographs Welding Fumes (n.o.c.)	OSHA Regulated

SECTION VII (PRECAUTION FOR SAFE HANDLING AND USE/APPLICABLE CONTROL MEASURES)

Read and understand the manufacturer's instructions and the precautionary label on this product. See American National Standard Z-49.1, Safety in Welding and Cutting, published by the American Welding Society, P.O. Box 351040, Miami, FL 33135, and OSHA Publication 2206 (29CFR 1910), U.S. Government Printing Office, Washington D.C. 20402, for more details on the following:

Ventilation: Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases below the TLV's in the workers breathing zone and the general area. Train the welder to keep his head out of the fumes.

Respiratory Protection: Use respirable fume respirator or air supplies respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.

Eye Protection: Wear helmet or use face shield with filter lens. As a rule of thumb, start with a shade darker to see the weld zone, then go to the next lighter shade which gives sufficient view of the weld zone. Provide screens and flash goggles to shield others.

Protective Clothing: Wear head, hand, and body protection which helps to prevent injury from radiation, sparks, and electrical shock (see ANSI Z-49.1). 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 touch live electrical parts and to insulate himself from work and ground.

Waste: Dispose of any grinding dust or waste residue in accordance with EPA or local regulations.