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#### SECTION 1

Manufacturers Address: Manufacturers Name: Koal Industries Inc.

560 Bonnie Ln. Elk Grove Village, IL 60007

Emergency Telephone Number: 847-956-7920 or CHEMTREC 1-800-424-9300

Trade Name: KOAL PLASMA QUENCH 617.2 Date of This Issue: September 2, 2009

Manufacturers Health and Safety Representative: S. P. Karas

Revision Date: 6/28/2005

CANADA WHMIS Class C Oxidizer

DOT Classification: OXIDIZING LIQUID, N.O.S., Class 5.1, UN-3139, Pk Grp III, OXIDIZER,

(SOLUBLE NITRITES)

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## OPTIONAL HMIS RATING

## SPECIFIC HAZARD

HMIS Hazard Rating	   HEALTH	1
4 = Extreme Hazard 3 = High Hazard 2 = Moderate Hazard	   FLAMMABILITY	0
1 = Slight Hazard 0 = Insignificant Hazard	REACTIVITY	0
	Personal Protection	x

HMIS is the abbreviation for the Hazardous Materials Identification System of the National Paint and Coating Association. This product is rated using the HMIS system only if the raw materials incorporated into this product have been rated by the raw materials manufacture. Then, the rating given above represents the most conservative interpretation of each ingredients HMIS ratings. If insufficient data is present to properly rate this product, then no rating is given.

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## SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, AND GASSES:

CAS No. NAME OSHA PEL ACGIH TLV Other Limits % (Optional)

7632-00-0 Nitrite - soluble salts

Materials disclosed above are for occupational health use only. The formula presented above is the property of KOAL INDUSTRIES INC., ALL RIGHTS RESERVED. Information presented herein are believed to be consistent with the requirements under OSHA Hazard Communication Standard (29 CFR 1910.1200).

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## SECTION 3 - PHYSICAL DATA

Initial 212 Boiling Point (F): Vapor Pressure (mm Hg.):
Vapor Density (AIR = 1): 17 initial

NE

Solubility in Water: All proportions Specific Gravity (Water = 1): 1.1 to 1.3 Per Cent Volatile by Volume %: 60 to 80 Evaporation Rate (water = 1): 1 initial

Appearance and Odor: Mild liquid. Characteristic detergent odor.

# SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): NA

Flammability Limits: UEL: NΑ LEL: NA

Extinguishing Media: NA

Special Fire Fighting procedures: NA Unusual Fire and Explosion Hazards: NA

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## SECTION 5 - HEALTH HAZARD DATA

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IF USED IMPROPERLY IS THIS MATERIAL TOXIC BY:
  Inhalation:
              Yes [ ] No [ x ]
 Skin Absorption: Yes [ ] No [ x ]
Ingestion: Yes [ ] No [ x ]
IS THIS MATERIAL AN IRRITANT TO:
                    Yes [ x ] No [
Yes [ x ] No [
 Skin:
                                       1
 Respiratory system: Yes [ x ]
                                No [
DOES THIS MATERIAL CONTAIN ANY LISTED CARCINOGENS: No
Health Hazards (acute & Chronic):
     Eve contact: Will cause irritation on contact.
     Skin Contact: May cause dermal irritation in some people.
     Inhalation: May cause irritation in some people.
     Ingestion: May cause gastrointestinal irritation if swallowed.
Signs & Symptoms of Exposure: NE
Medical Conditions Aggravated by Exposure: NE
Emergency and First Aid Procedures: NA
     Eye Contact: Wash eyes with plenty of water for at least 15 minutes. Get medical attention.
     Skin Contact: Wash skin with plenty of water for at least 15 minutes. Launder contaminated
clothing before re-use. Discard contaminated shoes.
     Inhalation: NA
     Ingestion: Get medical attention.
Supplemental Health Information: Working near a plasma arc may cause harmfull UV radiation exposure to
eyes and skin. Therefore, maintain a UV shield between workers and the plasma arc
______
SECTION 6 - REACTIVE DATA
DOES THIS MATERIAL POLYMERIZE, DECOMPOSE, EXPLODE, OR OTHERWISE REACT VIOLENTLY WHEN EXPOSED TO:
 Air:
            Yes [ ] No [ x ]
 Water:
            Yes [ ]
                      No [x]
 Heat: Yes [ ] No [ x ]
Oxidizers: Yes [ ] No [ x ]
 Acid: Yes [ x ] No [ ] May react violently on contact. Alkalies: Yes [ ] No [ x ]
 Organics: Yes [ ] No [ x ]
 Give data:
STABILITY:
            Stable [ x ]
                              Unstable [
Conditions to Avoid: When using this product in a water table for cutting Aluminum it should be noted
that any molten Aluminum that drops into the water will cause a reaction with the water releasing
Hydrogen gas. The Hydrogen released may collect in the air gap between the bottom of the Aluminum plate
being cut and the top of the cooling water. Once collected in sufficient quantity the Hydrogen will
ignite causing a pop, bang or small explosion, depending on the amount of hydrogen gas collected. By
using a floor fan positioned near the water table with a gentle air stream blowing under the plate, the
Hydrogen gas will be harmlessly flushed away. Molten Aluminum also reacts with the Plasma Quench
chemistry to release Ammonia. This Ammonia may become annoyingly concentrated if large amounts of Aluminum are being cut. The floor fan will remove small amounts of Ammonia from the area, but venting
may be required if long Aluminum cutting runs are expected.
Incompatibility (Materials to Avoid): Strong acids. Avoid mixing with amines to prevent the formation
of nitrosoammines.
Hazardous Decomposition Products: NE
HAZARDOUS POLYMERIZATION:
                           May Occur [ ] Will Not Occur [ x ]
Conditions to Avoid: NA
______
SECTION 7 - SPILL OR LEAK PROCEDURES
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STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL: Mop up spills and return to original container.

WASTE DISPOSAL METHOD: Rinse down area with water and sewer.

## SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type):

VENTILATION:

Local Exhaust: Use with adequate ventilation to control spray or mist.

Special:

Mechanical (General):

Other:

Protective Gloves: PVC or Rubber gloves. Cotton gloves may be used if not contaminated.

Eye Protection: Side shield safety glasses or chemical goggles.

Other protective Equipment: Equipment to protect against eye or skin contact is required.

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#### SECTION 9 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool, dry place. Keep container closed when not in use.

OTHER PRECAUTIONS: Do not mix with amines as the reaction product can contain nitrosoammines, known carcinogens.

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#### SECTION 10 - SARA TITLE III SECTION 313 REPORTING INFORMATION

CAS No.	REPORTABLE INGREDIENT HEALTH	PHYSICAL				REACTIVE
		Acute	Chronic	Fire	Pressure	
	Glycol Ethers	<10%	0%	0%	0%	0%
7632-00-0	Sodium Nitrite	<25%	0%	0%	0%	0%

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#### NOTES:

NA Not Applicable. NE Not Established.

NR Not Reported.

TLV Values represent 8 hour air exposure limit values, expressed as parts per million parts air (ppm), or expressed as milligrams particulate per cubic meter of air (mg/M3).

TWA Time weighted average.

STEL Short term exposure limit.

LD-50 Lethal oral dose expressed in mg substance ingested per kg of body weight.

ACGIH American Conference of Governmental Industrial Hygienists 6500 Glenway Ave. Bldg. D-7, Cincinnati, OH 45211-4438 513-661-7881

# REFERENCES:

Threshold Limit Values & Biological Exposure Indices; American Conference of Governmental Hygienists.

Dangerous Properties of Industrial Materials, 6th ed.; Sax; Van Nostrand.

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