

Material Safety Data Sheet (MSDS)

Pretreatment Solution for White Ink Printing

MSDS Revision Date: April 16, 2010

Chemical Product and Company Identification

Manufacturer:

i-Group Technologies, LLC
220 First Dr. NE
New Philadelphia, OH 44663
877-673-4378

For Emergencies Involving a Spill, Leak, Fire, Exposure or Accident, Contact Chemtrec (800-424-9300 within the United States or 703-527-3887 for international collect calls).

COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name(s) or Synonyms</u>	<u>Material CAS Number</u>	<u>Concentration %</u>
Water	7732-18-5	65- 85%
Inorganic Nitrate	***	10- 20%
Trade Secret	***	5- 15%
Formaldehyde	50-00-0	<0.02%

*** Proprietary Information withheld as a trade secret. Contains no other components or impurities which will influence the classification of this product.

HAZARDS IDENTIFICATION

May be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Eye contact may cause eye irritation with discomfort, tearing or blurring of vision. Repeated skin exposure to large quantities may result in absorption of harmful amounts. Wash thoroughly after handling.

ADDITIONAL HEALTH EFFECTS

Since this mixture has not been tested as a whole to determine the hazards by all routes of exposure, information is provided for each hazardous component of the mixture to meet requirements of OSHA's Hazard Communication Standard (29 CFR 1910.1200). The effects noted occur from exposure to the pure component unless otherwise noted.

INFORMATION FOR COMPONENTS

INORGANIC NITRATE

Eye Contact - May cause eye corrosion with corneal or conjunctival ulceration.

Skin Contact - May cause skin irritation with discomfort or rash.

Inhalation - May cause irritation of the upper respiratory passages with coughing and discomfort.

Ingestion - Ingestion may cause methemoglobinemia (reduced oxygen carrying capacity of the blood) with headache, weakness or cyanosis (bluish discoloration of the skin) possibly progressing to dizziness, incoordination, shortness of breath, increased pulse rate and loss of consciousness.

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FORMALDEHYDE

Eye Contact - Can cause irritation or tearing at levels below STEL.

Skin Contact - May cause allergic skin reaction.

Inhalation - May cause respiratory disorders (sensitization). Persons with sensitive airways may react to vapors.

Ingestion – May cause throat irritation.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material		IARC	NTP	OSHA	ACGIH
Formaldehyde	1	X	X	A2	

First Aid Measures

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.
INHALATION: Remove to fresh air.

INGESTION: If swallowed, contact a physician immediately. Induce vomiting after giving two glasses of water. Never give anything by mouth to an unconscious person.

Fire Fighting Measures

Flash Point : >93.3 °C (>200 °F)

Method : Closed Cup

Approximate Flammable Limits in Air, % by Volume

LEL : Not Available

UEL : Not Available

Autoignition Temperature : Not Available

Product is a nonflammable water-based solution.

Hazardous combustion products (gases/vapors) produced in fire can include carbon monoxide, carbon dioxide, nitrogen oxides and smoke.

Suitable extinguishing media:

Water spray, dry extinguishing media, foam

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contaminated breathing apparatus and turn-out gear.

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations

Accidental Release Measures

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Spill Clean Up:

Contain spill and soak up with absorbent material.

Handling and Storage

Store in a cool, dry, well-ventilated place away from incompatible materials. Do not breathe heated vapor or dust. Do not get in eyes, on skin, or clothing. Wash thoroughly after handling. Keep container tightly closed.

Exposure Controls/ Personal Protection

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of the material.

RESPIRATORS

Respirators are not needed with proper ventilation. Wear an approved respirator (e.g., an organic vapor respirator or a self-breathing apparatus whenever exposure to aerosol, mist, spray, fume or vapor exceed the exposure limit(s) of any chemical substance listed in this MSDS.

PROTECTIVE CLOTHING

If there is potential for significant dermal contact wear appropriate impervious clothing and gloves.

Applicable Exposure Limits and Exposure Data

INORGANIC NITRATE

PEL (OSHA) : None Established

TLV (ACGIH) : None Established

AEL * (DuPont) : 5 mg/m³, 8 Hr. TWA, total dust

LD50 (rat, oral) : 3,900 mg/kg (supplier)

LC50 (rat, inhalation/4 hr.) : No data available

FORMALDEHYDE

STEL (OSHA) : 2 ppm

TWA (OSHA) : 0.75 ppm

ACTION LEVEL (OSHA) : 0.5 ppm

STEL (ACGIH) : 0.3 ppm CEILING

LD50 (rat, oral) : 100 mg/kg (supplier)

LD50 (rabbit, dermal) : 270 mg/kg (supplier)

Physical and Chemical Properties

Physical Data

Solubility in Water : Miscible

Form : Liquid

Color : Milky White

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Stability and Reactivity

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

None reasonably foreseeable.

Polymerization

Polymerization will not occur.

Toxicological Information

There is no toxicity data available for this specific formulation. Any potential hazards are presumed to be due to exposure to the components.

Regulatory Information

According to EU Directive 88/379/EEC, this product is not classified as dangerous and therefore no hazard label is required. For other countries, no product label would be required

Other Information

Disclaimer:

The information herein is given in good faith but no warranty, expressed or implied, is made.