
SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: HCS 402 Ink Remover
Product Code: B13140
MSDS Date: January 22, 2015

PRI
700 Industrial Drive
Dupo, IL 62239

General Information: 618-286-5000

Emergency Information: 618-286-5000

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

GHS Classification:

Flammable liquids (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Reproductive toxicity (Category 1B)
Specific target organ toxicity - single exposure (Category 3), Respiratory system, CNS

GHS Labeling



Symbol:

Signal Word: Danger

Hazard Statements:

Combustible liquid
Causes skin irritation.
Causes serious eye irritation
May damage fertility or the unborn child
May cause respiratory irritation
May cause drowsiness or dizziness

Precautionary Statements:

Prevention:

Avoid breathing mist/vapors/spray.
Do not handle until all safety precautions have been read and understood.
Keep away from flames and hot surfaces-no smoking.
Obtain special instructions before use.
Use only outdoors or in a well-ventilated area.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:

Call a poison center/doctor if you feel unwell.

If exposed or concerned: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 If on skin: Wash with plenty of water.
 If skin irritation occurs: Get medical advice/attention.
 In case of fire: Use water spray or fog, carbon dioxide, dry chemical powder, or alcohol resistant foam to extinguish. Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep cool. Keep container tightly closed.
 Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Potential Health Effects: See Section 11 for more information.

This product does not contain carcinogens or potential carcinogens as listed by OSHA, IARC, or NTP.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	N-methyl-2-pyrrolidone CAS # 872-50-4	50-100	Not avail	Not avail	Not avail	Not avail
2	The specific chemical identity and exact percentage has been withheld as a trade secret.	Trade Secret	Not avail	Not avail	Not avail	Not avail
3	Acetate ester, C7-9 alcohol, branched CAS # 108419-32-5	1-50	Not avail	Not avail	Not avail	Not avail

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin: Wash off with soap and plenty of water. Consult a physician.
Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Section 5: FIRE FIGHTING MEASURES

Flash Point N-methyl-2-pyrrolidone: 91 °C (196 °F) - closed cup
Lower Explosion Limit N-methyl-2-pyrrolidone: 1.3%(v)
Upper Explosion Limit N-methyl-2-pyrrolidone: 9.5% (v)

Suitable Extinguishing Media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Products of Combustion: Upon decomposition this product may emit Carbon oxides, nitrogen oxides (NOx)

Fire Fighting Equipment/Instructions:

Wear self contained breathing apparatus for fire fighting if necessary.
Use water spray to cool unopened containers

HAZARD	HMIS	NFPA
Toxicity	2	2
Fire	2	2
Reactivity	0	0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Method for Containment: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Methods for Clean-up: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container. Wash spill area with water.

Section 7: HANDLING AND STORAGE

Handling:

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment (PPE)

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye/Face Protection: Safety glasses. Use splash goggles and face shield when eye contact may occur.

Hand Protection: Use chemical resistant butyl rubber gloves.

Body: Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Other Protective Equipment:

Facilities storing or utilizing this material should be equipped with eyewash and safety shower facilities.

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State	Clear liquid
Color	Colorless
Odor	Not available
pH (1%soln/water) (N-methyl-2-pyrrolidone)	7.7-8
Vapor Density	Not Available
Boiling Point (N-methyl-2-pyrrolidone)	202 °C (396 °F) 81 - 82 °C (178 - 180 °F) at 13 hPa (10 mmHg)
Vapor Pressure (N-methyl-2-pyrrolidone)	0.39-0.43 hPa (0.29-0.32mmHg) at 20°C (68°F)
Melting Point (N-methyl-2-pyrrolidone)	Melting point/range: -24 °C (-11 °F)
Freezing Point	Not Available
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility (in water)	Miscible in water
Relative density (N-methyl-2-pyrrolidone):	1.028 g/mL at 25°C (77°F)
Evaporation Rate	Not Available
Octanol/Water partition coefficient (Kow)	Not Available
Auto-ignition temperature:	Not Available
Decomposition temperature:	Not Available
Viscosity:	Not Available

Section 10: STABILITY AND REACTIVITY

Stability: This material is considered stable at ambient temperatures 70°C (21°C).

Condition to Avoid: Flames, sparks, electrostatic discharge, heat and other ignition sources.

Incompatible Materials: This product reacts with strong acid, and oxidizing agents.

Hazardous Decomposition: No data available

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

Analysis LD50

N-methyl-2-pyrrolidone

LD50 Oral - rat - 3,914 mg/kg

LDLO Inhalation - rat - 4 h - > 5100 ppm

LD50 Dermal - rabbit - 8,000 mg/kg

CHRONIC EFFECTS:

N-methyl-2-pyrrolidone

Carcinogenicity: No component identified as a carcinogen

Neurotoxicity: Not available

Mutagenicity: Not available

Reproductive: Not available

Developmental: Damage to fetus possible

Target Organs: Eye irritation. Inhalation - May cause respiratory irritation. prolonged or repeated exposure can cause:, Vomiting, Diarrhea, Abdominal pain, Rats exposed to 1-methyl-2- pyrrolidinone at a concentration of 1 mg/L as an aerosol for 10 days showed depletion of hematopoietic cells in the bone marrow and atrophy of the lymphoid tissues of the thymus, spleen, and lymph nodes.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: LC50 - other fish - 4,000 mg/l - 96 h
LC50 - Leuciscus idus (Golden orfe) - > 500 mg/l - 96 h
EC50 - Daphnia magna (Water flea) - > 1,000 mg/l - 24 h
Toxicity to bacteria LC50 - Bacteria - > 9,000 mg/l

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

Section 14: TRANSPORTATION INFORMATION

Proper Shipping Name: Combustible Liquid, n.o.s. (contains N-Methyl-2-Pyrrolidone)
Hazard Class: Comb. Liq.
Identification No.: NA1993
Packing Group: III
Label: Combustible (Bulk)

Section 15: REGULATORY INFORMATION

TSCA Inventory: This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 313: n-Methyl-2-Pyrrolidone (CAS #872-50-4)

CERCLA: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: No components were identified.

SARA 311/312 Hazard: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Fire Hazard, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard

California Prop 65: N-Methylpyrrolidone developmental hazard

Section 16: OTHER INFORMATION

Prepared on 1/22/15

Disclaimer:

The information and recommendations contained in the Safety Data Sheet (SDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

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