NAME OF PRODUCT: NCP® JINX STARCH®

FAMILY NAME: Acidic Aqueous Solution

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE:
IDENTIFIED USES: Removes burnt starch from cold metal press heads.

COMPANY IDENTIFICATION:
NEUHAUS CHEMICAL PRODUCTS, INC.
5727 MOBUD
SAN ANTONIO, TEXAS, USA 78238-1820
(210) 684-2411 TELEPHONE (210) 684-2433 FAX

EMERGENCY TELEPHONE NUMBER: INFOTRAC 1-800-535-5053 (USA AND CANADA).

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:
GLOBALELY HARMONIZED SYSTEM CLASSIFICATION:
Combustible Liquid – Category 4. [Flash point > 60°C (140°F) and ≤ 93°C (199.4°F)].
Eye irritation – Category 2A (Irritant - Reversible in 21 days).
Skin irritation – Category 2 (Causes skin irritation).

GLOBAL HARMONIZED SYSTEM CLASSIFICATION SCALE: (1 = severe hazard, 4 = slight hazard).

LABEL ELEMENTS:
HAZARD PICTOGRAMS:

SIGNAL WORD: Warning

HAZARD STATEMENTS:
Combustible Liquid. Causes serious eye irritation. Causes skin irritation.

PRECAUTIONARY STATEMENTS:
PREVENTION:
Keep away from flames and hot surfaces. No smoking.
Store in a cool, well-ventilated place.
Wear protective gloves/eye protection.
Wash hands thoroughly after handling.
Take precautionary measures against static discharge.
Keep out of the reach of children.

RESPONSE:
IF INHALED: If symptoms of over-exposure develop, move person to fresh air and keep comfortable for breathing. Call a physician if symptoms do not improve.
IF ON SKIN (OR HAIR): Remove immediately all contaminated clothing. Rinse skin with water / shower. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present, and easy to do. Continue rinsing for 15 minutes. If eye irritation persists, get medical advice/attention.
IF SWALLOWED: Do NOT induce vomiting. Give the person large amounts of water and several glasses of milk; or 4-6 ounces of milk of magnesia in place of milk. Get immediate medical attention.
IN CASE OF FIRE: Use dry chemical fire extinguishers, carbon dioxide (CO2), alcohol-resistant foam for extinction. May use dry sand, or water spray.
DISPOSAL: Dispose of contents and container in accordance with local / regional / national / international regulations.
SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

SYNONYMS: Acidic Aqueous Solution Family.
This product is a mixture.

<table>
<thead>
<tr>
<th>MATERIAL/COMPONENTS</th>
<th>CAS #</th>
<th>CAS NAME</th>
<th>TLV UNITS</th>
<th>APPROXIMATE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrofluoric Acid</td>
<td>7664-39-3</td>
<td>Hydrofluoric Acid</td>
<td>3 ppm</td>
<td>&lt; 1.1760%</td>
</tr>
<tr>
<td>Sulfuric Acid</td>
<td>7664-93-9</td>
<td>Sulfuric Acid</td>
<td>1mg/m^3 TWA</td>
<td>&lt; 1.1625%</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>2-Butoxyethanol</td>
<td>25 ppm (skin)</td>
<td>&lt; 1.2500%</td>
</tr>
</tbody>
</table>

As per paragraph (i) 29 CFR 1910.1200, the formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition has been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i). This product is considered non-hazardous and non-restricted. This product is not considered to be a carcinogen.

SECTION 4 - FIRST AID MEASURES

DESCRIPTION OF NECESSARY FIRST AID MEASURES:

GENERAL ADVICE: If exposed or concerned: Consult a physician / doctor if necessary.

INHALATION: If symptoms of over-exposure develop, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms do not improve.

SKIN CONTACT: Rinse skin with water / shower. If spilled on clothing, remove all contaminated clothing immediately. Wash contaminated clothing before reuse.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present, after the initial 1-2 minutes. Continue rinsing for 15 minutes. If pain, irritation, or vision problems persist, see an ophthalmologist immediately. Suitable emergency eye wash facility should be immediately available.

INGESTION: If swallowed, check to see if the person is conscious. If conscious, do NOT induce vomiting. Give the person large amounts of water and several glasses of milk, or 4-6 ounces of milk of magnesia in place of milk. Get medical attention immediately. If person is unconscious, do NOT give anything by mouth. Get medical attention immediately.

MOST IMPORTANT SYMPTOMS / EFFECTS, BOTH ACUTE AND DELAYED:
Aside from the information found under “Description of First Aid Measures” (above) and “Indication of Immediate Medical Attention and Special Treatment Needed” (below), any additional important symptoms and effects are described in Section 11: “Toxicology Information”.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

NOTES TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use dry chemical fire extinguishers, carbon dioxide (CO_2) fire extinguishers, or alcohol-resistant foam (ATC type) fire extinguishers for extinction.

UNSUITABLE EXTINGUISHING MEDIA: Do not use solid water stream. Straight or direct water streams may not be effective to extinguish fire.

SPECIFIC HAZARDS ARISING FROM FIRE FIGHTING:

HAZARDOUS COMBUSTION PRODUCTS: During a fire, smoke may contain hydrogen gas, hydrogen fluoride, sulfur trioxide, carbon dioxide (CO_2), and carbon monoxide (CO).

UNUSUAL FIRE & EXPLOSION HAZARDS: Flammable vapor. Vapors from this product may travel along the ground for some distance and can be ignited by heat, pilot lights, etc., and flash back to the source of vapors.

SENSITIVITY TO MECHANICAL IMPACT & STATIC DISCHARGE: Not susceptible to mechanical impact. Vapors may explode if exposed to static discharge.

ADVICE FOR FIREFIGHTERS:

FIRE FIGHTING PROCEDURES: Isolate fire and deny unnecessary entry. Product may be carried across water surface spreading fire or contracting any ignition source.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: If more than a small fire, wear positive pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.
SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE:
Eliminate all sources of ignition in the vicinity of spill to avoid fire or explosion. Ventilate area of leak or spill. No smoking in area. Remove immediately all contaminated clothing. Refer to section 7, “Handling”, for additional precautionary measures. For additional information, refer to section 8, “Exposure Controls and Personal Protection”.

ENVIRONMENTAL PRECAUTIONS: WASTE DISPOSAL: Dispose of waste according to the local / regional / national / international regulations that apply in your location. Treat waste as flammable material, even when absorbed in rags or absorbent.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP: FOR SMALL SPILLS OR Drips: Wipe liquid up with a paper towel. Place absorbent in a metal container with a tight lid for disposal. FOR LARGE SPILLS: If large spill, neutralize with sodium bicarbonate and wipe up with paper towels. Scoop up and place in a metal container with a tight lid for disposal. See Section 13, "Disposal Considerations", for additional information.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Keep away from flames and hot surfaces. No smoking. Wash hands thoroughly after handling. Take precautionary measures against static discharge. Avoid eye contact or skin contact. Keep out of the reach of children. Treat all chemicals with caution and respect, and always use only as directed.

INCOMPATIBLE MATERIALS: Avoid contact with aluminum, tin, zinc, strong bases, organic halogen compounds, organic nitro compounds, strong oxidizers.

CONDITIONS FOR SAFE STORAGE:
STORAGE CLASS: General
STORAGE REQUIREMENTS: Store in a cool, well-ventilated place. Keep container sealed when not in use.
PACKAGING MATERIAL: HDPE bottles.
UNSUITABLE PACKAGING MATERIAL: Not determined.
CONDITIONS TO AVOID: Hot metal surfaces. Use ONLY on COLD surfaces.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS:
EXPOSURE LIMITS:

For Hydrofluoric Acid:
- OSHA PEL: 3 ppm
- ACGIH TLV-TWA: 3 ppm (ceiling)
- ACGIH STEL: 6 ppm

For Sulfuric Acid:
- OSHA PEL: 1 mg/m³
- ACGIH TLV-TWA: 1 mg/m³
- ACGIH STEL: 3 mg/m³

For 2-Butoxyethanol:
- OSHA PEL: 25 ppm (skin)
- ACGIH TLV-TWA: 25 ppm (skin)
- ACGIH STEL: none

EXPOSURE CONTROLS:
ENGINEERING CONTROLS: Only local exhaust is needed, as chemical is for use on COLD SURFACES ONLY. If applied to warm or hot surfaces, immediate vaporization will occur and vapors can be absorbed by skin and eyes.

PERSONAL PROTECTIVE EQUIPMENT:
EYE / FACE PROTECTION: Face shield is not needed for normal use; however, safety glasses with side shields or safety goggles are recommended.
SKIN PROTECTION: To protect skin, wear neoprene, PVC, or nitrile gloves.
OTHER PROTECTIVE EQUIPMENT OR CLOTHING: Shoulder length plastic sleeves may be worn because of close proximity to parts to be cleaned.
RESPIRATORY PROTECTION: None normally needed. Product is for use on COLD SURFACES ONLY.
OTHER PROTECTIVE EQUIPMENT OR CLOTHING: None needed in normal use. Provide eye bath in case of accidental contact.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Milky white liquid
COLOR: Milky white
STATE: Liquid
ODOR CHARACTERISTICS: Slight acidic odor
pH: 2.7
VISCOITY: Not Available
SPECIFIC GRAVITY (WATER = 1.0 @ 68°F): 1.01
VAPOR DENSITY (AIR = 1.0 @ 75°F): 1.04
VAPOR PRESSURE (mm Hg @ 38°F): 110
UPPER FLAMMABLE LIMIT (% BY VOLUME): Not Available
AUTO-IGNITION TEMPERATURE: Not Available
MELTING POINT: 34°F (1.1°C)
BOILING POINT (760 mm Hg): 212°F (100°C)
FLASH POINT (METHOD): 170°F (76.6°C) CLEVELAND OPEN CUP (D92)
FREEZING POINT: 27°F (-2.7°C)
PERCENT VOLATILITY: 2.5%
EVAPORATION RATE (BAc = 1.0 @ 120°F): 1.169
SOLUBILITY IN WATER (w/w) @ 50°F: Complete
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not Available
SOLUBILITY IN ACETONE: Not Available
LOWER FLAMMABLE LIMIT (% BY VOLUME): Not Available
DECOMPOSITION TEMPERATURE: Not Available
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SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: No data available.
CHEMICAL STABILITY: Stable under recommended storage conditions.
POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.
CONDITIONS TO AVOID: Hot metal surfaces. Use only on COLD surfaces.
INCOMPATIBLE MATERIALS: Avoid contact with strong alkalis, oxidizers, organics, anhydrides, amines, glass, and metals (other than nickel and stainless steel).
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: When this product burns, it can release hydrogen gas, hydrogen fluoride, sulfur tri-oxide, carbon monoxide (CO) carbon dioxide (CO$_2$).

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
ACUTE ORAL TOXICITY: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
LD$_{50}$, Rat, > 5,000 mg/kg
ACUTE DERMAL TOXICITY: Prolonged skin contact is unlikely to result in absorption of harmful amounts.
LD$_{50}$, Rabbit, > 5,000 mg/kg
ACUTE INHALATION TOXICITY: No adverse effects are anticipated from single exposure to vapor.
LC$_{50}$, Rat, female, > 19.0 4 hour vapour.
SKIN CORROSION / IRRITATION: No data available.
SERIOUS EYE DAMAGE / EYE IRRITATION: No data available.
SENSITIZATION:
FOR SKIN SENSITIZATION: Did not cause allergic skin reactions when tested in humans or guinea pigs. This product is not known to cause allergies.
FOR RESPIRATORY SENSITIZATION: No adverse effect observed. This product is not known to cause allergies. Inhalation of high concentrations of this product may aggravate pre-existing asthma.
GERM CELL MUTAGENICITY: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.
CARCINOGENICITY: No chemicals in this product are listed by NTP, IARC, OSHA, OR ACGIH as a carcinogen.
REPRODUCTIVE TOXICITY: No information available.

DELAYED AND IMMEDIATE EFFECTS / CHRONIC EFFECTS FROM SHORT-TERM AND LONG-TERM EXPOSURE:
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): Evaluation of available data suggests that this material is not an STOT-SE toxicant.
SPECIAL TARGET ORGAN TOXICITY (REPEATED EXPOSURE):
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.
TERATOGENICITY: Did not cause birth defects or any other fetal effects in laboratory animals.
ASPIRATION HAZARD: Based on physical properties, not likely to be an aspiration hazard.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

TOXICITY: No data available.
PERSISTENCE AND DEGRADABILITY: No data available.
BIOACCUMULATIVE POTENTIAL: No data available.
MOBILITY IN SOIL: No data available.
RESULTS OF PBT and vPvB ASSESSMENT: This product does not contain PBT or vPvB substances.
OTHER ADVERSE EFFECTS: No data available.
REPRODUCTIVE/TERATOLOGY DATA: No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

PROCEDURES: For small spills or drips, mop or wipe up and dispose of in DOT approved container. For large spills, neutralize with sodium bicarbonate and wipe up with paper towels and place residue in DOT approved waste container. All disposal practices must be in compliance with all Federal, State/Provincial and Local laws and regulations. Waste characterizations and compliance with applicable laws are solely the responsibility of the waste generator. For unused & uncontaminated product, the preferred method is to send to a licensed waste management company for disposal.
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SECTION 14 - TRANSPORT INFORMATION

UN-NUMBER: Not Regulated.
UN PROPER SHIPPING NAME: Not Regulated.
TRANSPORT HAZARD CLASS(ES): Not Regulated.
Packing Group: As per 173.150 (B) (3) – Packing Group III
ENVIRONMENTAL HAZARD(S): Not Regulated.
SPECIAL PRECAUTION TO USES: See section 7.
SHIPPING DOT CLASSIFICATION: 48580 Sub. 3 Class 55 (COMPOUNDS, CLEANING, LIQUID). Non-Hazardous. Non-Restricted. As stated in 49 CFR, 173.150 (B) (F): This product is shipped in: Limited Quantities and does not have to be labeled as combustible.
WARNING LABELS: None needed as per: 49 CFR, 173.150 (B) (F).
CLASSIFICATION FOR SEA TRANSPORT (IMO-IMDG): Ocean Voyage Commodity #3402.11.0000.

SECTION 15 - REGULATORY INFORMATION

WORKPLACE CLASSIFICATION: Not Regulated.
SAFETY, HEALTH AND ENVIRONMENTAL REGULATION / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE OF THIS PRODUCT:
This Safety Data Sheet complies with the requirements of 29 CFR § 1910.1200.
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA) or are exempt from reporting.
CALIFORNIA REGULATION: The product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.
CALIFORNIA PROPOSITION 65: This product does not contain any Proposition 65 chemicals.
PENNSYLVANIA REGULATIONS: To the best of our knowledge, this product does not contain any components cited on the Pennsylvania Special Hazardous Substances List at levels which would require a warning under the statute.
CANADIAN REGULATIONS: This material or all of its components are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).
WHMIS INFORMATION: The Canadian Workplace Hazardous materials Information System (WHMIS) classification for this product is: Class B3 – Combustible Liquids: Flashpoint of 37.8ºC – 93.3ºC (100ºF – 200ºF).

SECTION 16 - OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) CLASSIFICATION:
HEALTH (BLUE): 1 – Irritation or minor reversible injury possible. Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials.
FLAMMABILITY (RED): 2 – Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100ºF (38ºC) but below 200ºF (93ºC). (Class IIIA).
PHYSICAL HAZARDS (ORANGE): 0 – Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.
PERSONAL PROTECTION (WHITE): B – Safety glasses & gloves recommended.
NATIONAL FIRE PROTECTION ASSOCIATION RATINGS:

HEALTH (BLUE): 1 – Exposure would cause irritation with only minor residual injury.
FLAMMABILITY (RED): 2 – Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 38°C and 93°C (100°F and 200°F).
INSTABILITY/REACTIVITY (YELLOW): 0 – Normally stable, even under fire exposure conditions, and is not reactive with water.
SPECIAL NOTICE (WHITE): None

This Safety Data Sheet contains the following revisions: Updates made in accordance with implementation of GHS requirements.

DATE OF PREPARATION: 01 June 2015

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

END OF SDS