

MATERIAL SAFETY DATA SHEET

CLEANING SOLUTIONS INC * 1250 RAMONA ST SE * GRAND RAPIDS, MI 49507 * (616-243-0555)

EMERGENCY 24-HOUR TELEPHONE #: 1-800-535-5053 (INFOTRAC, INC.)

PRODUCT NAME: **BROWNING AGENT**

N/D = Not Determined

CHEMICAL FAMILY: Mixture

N/A = Not Applicable

SECTION I: HAZARDOUS INGREDIENTS IDENTIFICATION

NAME	OSHA PEL	ACGIH TLV	CAS #	NAME	OSHA PEL	ACGIH TLV	CAS #
PHOSPHORIC ACID	1mg/3m	TLV	7664-38-2	ISOPROPANOL	N/D	N/D	67-63-0
ETHANOIC ACID	1mg/3m	TLV	64-19-7	CITRIC ACID	N/A	N/A	77-92-9

SECTION II: EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with water for at least 15 minutes. Consult ophthalmologist urgently.
SKIN: Flush area & thoroughly wash with soap & water. Remove & wash contaminated clothing.
INGESTION: Do NOT induce vomiting. Drink at least 2 glasses of milk or water. Seek medical attention immediately.
INHALATION: Remove to fresh air. If breathing discomfort occurs & is persists, call physician.
PHYSICIAN: Treatment based on judgment of attending physician.

SECTION III: PHYSICAL / CHEMICAL DATA

APPEARANCE : Clear. **SPECIFIC GRAVITY:** 1.057
SOLUBILITY IN WATER: 100% **pH:** 1.5 - 2.2
VAPOR DENSITY: 2.07 **BOILING POINT:** 215° - 224° F.
VAPOR PRESSURE: (mmHg) 8-2 at 25° C. **ODOR:** Vinegar-like
PERCENTAGE VOLATILE BY VOLUME (%): 8.75%

SECTION IV: FIRE AND EXPLOSION DATA

FLASH POINT: 109° F. **EXPLOSIVE LIMITS - LEL:** 5.3 **UEL:** 16.6
EXTINGUISHING MEDIA: Water, dry chemical CO2
SPECIAL FIRE FIGHTING PROCEDURES: Use appropriate media, water spray, dry chemical carbon dioxide and alcohol foam.
UNUSUAL FIRE AND EXPLOSION HAZARD: Product may react with some metals (i.e.: aluminum, zinc, and tin). Releases flammable hydrogen gas.

SECTION V: REACTIVITY DATA

STABILITY: Stable.
HAZARDOUS COMBUSTION or DECOMPOSITION BYPRODUCTS: Burning can produce carbon monoxide and/or CO₂.
HAZARDOUS POLYMERIZATION: Will not occur.
CONDITIONS TO AVOID: None.
INCOMPATIBILITIES: Avoid contamination with alkalis, amines, and nitric acid.

SECTION VII: PROTECTION MEASURES

VENTILATION: Well ventilated.
EYE PROTECTION: Chemical resistant safety glasses with unperforated side shields. Eye wash station.
RESPIRATORY PROTECTION: When adequate ventilation cannot be achieved or if individual may be sensitive to material, use NIOSH/MSHA approved breathing apparatus.
GLOVES: Rubber gloves. **OTHER PROTECTIVE EQUIPMENT:** Rubber apron, body covering clothing should be worn.

SECTION VIII: SPECIAL PRECAUTIONS

Steps in Spill Clean Up: Evacuate unprotected personnel from area. Maintain adequate ventilation. Contain spill and place into drums for proper disposal. Flush remaining area with water and neutralize with soda, ash or lime.

Handling & Storage: Store in original container only, in a dry place inaccessible to children, pets and domestic animals. Store apart from pesticide, fertilizer, food or feed that may cause cross contamination. Store in a cool well ventilated area, out of direct sunlight. Do not freeze. Keep containers tightly closed. Relieve pressure on drums weekly.

DISCLAIMER OF LIABILITY

The manufacturer and seller warrants that this product conforms to its standard specifications when used according to directions. As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without any warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material and the results to be obtained from the use thereof.