Material Safety Data Sheet
HENRY SCHEIN® HTC Fixer Concentrate
MSDS # 27280F-60

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Revision Date:	**1/17/00**
Trade Name:	HENRY SCHEIN® HTC Fixer Concentrate
Chemical Name:	Aqueous mixture, see below.
Synonyms:	None
Formula:	Mixture, see below.
Product ID/Catalog Numbers:	27280F-60
Distributed By:	Henry Schein, Inc. 135 Duryea Road Melville, NY 11747

TRANSPORTATION EMERGENCIES (24 Hrs.): CHEMTREC (800) 424-9300
GENERAL INFORMATION : (800) 472-4346

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS Number	% By Weight	OSHA 8-Hour ppm	OSHA 8-Hour mg/m3	ACGIH TLV ppm	ACGIH TLV mg/m3
Ammonium Thiosulfate	7783-18-8	30-35	NE	NE	NE	NE
Sodium Sulfite	7757-83-7	1-5	-------	15	------	10
Sodium Tetraborate	1330-43-4	1-5	-------	10	------	1
Acetic Acid	64-19-7	1-5	10	25	10	25
Aluminum Sulfate	10043-01-3	<1	-------	2 (as Al)	------	2 (as Al)
Water	7732-18-5	45-50	NE	NE	NE	NE

NE = Not Established

SECTION 3 - HAZARDS IDENTIFICATION

Potential Health Effects

Skin: Prolonged or repeated contact with product may cause skin irritation.
Eyes: Contact with eyes may cause irritation or a burning sensation.
Inhalation: Inhalation of product mist may cause irritation of the nose, throat and respiratory tract.
Ingestion: Ingestion of product may cause irritation of the gastrointestinal tract to include nausea, vomiting, and diarrhea. Some asthmatics or sulfite sensitive individuals may experience wheezing, chest tightness, hives, weakness and diarrhea following ingestion.

Conditions aggravated by overexposure: Pre-existing respiratory conditions such as asthma (if irritating gases are produced in fire conditions or if mixed with strongly acidic or alkaline chemicals).
Carcinogenicity: Are any ingredients listed as carcinogens? IARC? No **NTP?** No **OSHA?** No
(See Section 11 for Toxicological Information)

SECTION 4-FIRST AID MEASURES

Eye Contact: Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact: Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if skin irritation develops. Thoroughly wash (or discard) clothing and shoes before reuse.

Inhalation: If contamination by a strong acid or alkaline chemical source causes gas or vapor to develop which irritates the nose or throat, move to fresh air. If breathing is difficult, get immediate medical attention. If not breathing, have trained personnel give oxygen or administer CPR. Get immediate medical attention. Clear the work area of vapors before returning to work.

Ingestion: If swallowed, give 2-4 glasses of water and induce vomiting. Call a physician (or Poison Control Center) immediately. Never give anything by mouth to an unconscious person.

SECTION 5- FIRE FIGHTING MEASURES

Flammable Properties	Non-flammable water based solution.
Flash Point:	None
Test Method:	N/A
Lower Flammable Limit:	N/A
Upper Flammable Limit:	N/A
Autoignition Temp.:	N/A
Extinguishing Media:	Use existing media appropriate for surrounding materials.
Fire Fighting Instructions:	Use normal fire fighting procedures including full protective gear and approved self contained breathing apparatus.

Will produce toxic ammonia gas when mixed with alkaline materials. Will produce sulfur dioxide gas when mixed with strong acids. May produce toxic gases in fire conditions (Carbon dioxide, carbon monoxide, oxides of sulfur, ammonia).
N/A = Not Applicable

SECTION 6- ACCIDENTAL RELEASE

Isolate hazard area and limit entry only to authorized, protected personnel. Wear appropriate protective clothing. For small incidental spills and leaks, wear chemical safety goggles, and neoprene or nitrile gloves, and apron or coveralls. For larger spills requiring emergency response, neoprene boots and respiratory protection may also be required. Follow OSHA regulations and NIOSH recommendations for respiratory protection (see 29 CFR 1910.134 and NIOSH pub 87-108) and emergency response (see 29 CFR 1910.120). Hold in properly labeled DOT approved waste container. Dike large spills to minimize the spill area. Material can cause environmental damage. Prevent material from contaminating soil or entering sewer or waterways.

SECTION 7- HANDLING AND STORAGE

Handling: Do not get in eyes, on skin or clothing. Avoid inhalation exposure, use with adequate ventilation. (See Section 8 for Personal Protection.) Wash thoroughly after handling. Do not eat, drink or smoke in work area.

Storage: Keep container tightly closed. Store in a cool, dry, well ventilated area. Store and ship above 40°F (5°C) and below 100°F (40°C). Optimum storage temperature 68°F (20°C).

SECTION 8- PERSONAL PROTECTION

Ventilation:	Vent work area to ensure airborne concentrations are below the current occupational exposure limits.
Respiratory Protection:	With properly vented facility, a respirator is not required under typical use. (See Section 6 for Procedures regarding accidental release.
Eye Protection:	Wear chemical splash goggles for all handling operations. Have emergency eye wash equipment easily accessible that provides at least 15 minutes of running water. (See ANSI specification Z358.1-1990.)
Skin Protection:	Wear appropriate protective clothing, including a chemical resistant apron and gloves such as vinyl, neoprene or nitrile.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor:	Clear liquid, slight vinegar odor
Specific Gravity:	1.25
Solubility in Water (20 C):	Complete
pH:	4.95
Boiling Point:	>212°F
Percent Volatile by Weight:	40%

Vapor Pressure (mm Hg): 17.0

SECTION 10- STABILITY / REACTIVITY

Stability: Material is stable except when exposed to excessive heat.
Incompatibility: Avoid contact with strong acids or alkaline materials.
Hazardous Decomposition Products: SO_2 and ammonia
Polymerization: Will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Product Toxicology Data

Acute Oral LD50: No data.
Skin: Moderate skin irritant.
Eyes: Moderate eye irritant.

Pure Component Toxicology Information

Ammonium Thiosulfate: Contact with the eyes by product mist or solution may cause irritation or a burning sensation. Prolonged or repeated contact with product mist or solution may cause skin irritation. Ingestion of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea. Ammonium thiosulfate is considered to have a low toxicity to humans. It is not listed as a carcinogen by NTP, IARC or OSHA.

Sodium Sulfite: Slightly toxic by oral ingestion. Contact may cause irritation of the eyes, skin and respiratory tract. Ingestion may result in severe gastric irritation. Exposures to small amounts of sulfites have been reported to cause hypersensitivity reactions in certain susceptible individuals, especially asthmatics. Symptoms may include hives, respiratory distress, flushing, G.I. disturbances and contact dermatitis. Severe cases may result in respiratory arrest, unconsciousness or coma. There are no known chronic effects associated with this material. It is not listed as a carcinogen by NTP, IARC or OSHA.

Sodium Tetraborate: Slightly toxic by oral ingestion. Low acute dermal toxicity. As a pure component, it is poorly absorbed through the skin and is a non-irritant. 50 years of occupational exposure to sodium tetraborate-5 mol indicates no adverse effects on human eyes. Animal feeding studies have demonstrated effects on fertility. An epidemiology study under the conditions of normal occupational exposure to borate dusts indicated no effect on fertility. It is not listed as a carcinogen by NTP, IARC or OSHA.

Acetic Acid (dilute): May irritate skin. May irritate or cause burns to eyes. Acetic acid can be found in concentrations of 5-8% in vinegar. The compound has been infrequently associated with skin sensitization in humans. It is not listed as a carcinogen by NTP, IARC or OSHA.

SECTION 12- DISPOSAL CONSIDERATIONS

Do not discharge to septic system. Discharging this material to the sewer may require a permit. Product should be disposed of in accordance with federal (40 CFR part 261), state and local regulations. Before attempting cleanup, refer to hazard information and protective measures (chemical gloves, etc.)

SECTION 13- ECOLOGICAL INFORMATION

This product has ecological effects. Do not dispose of in waterways.

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SECTION 14- TRANSPORTATION INFORMATION

Regulated by U.S. Department of Transportation? No

Proper Shipping Name:	Chemical, N.O.I.
U.N. Identification Number:	None
Hazard Class:	None
Packing Group:	None
Limited Quantity Packaging:	Not applicable
Label Required (Air shipments):	None

SECTION 15- REGULATORY INFORMATION

OSHA:
This product is subject to the Hazard Communication Rule, 29 CFR, 1910.1200.

CERCLA HAZARDOUS SUBSTANCE (40 CFR 302): Yes – Acetic acid, aluminum sulfate

SARA Title III:
Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) requires submission of annual reports of releases of toxic chemicals that appear in 40 CFR 372 (for SARA 313).

SARA Hazard Catagories: Immediate (Acute). (See Section 3, Potential health effects.) Components present in this product at a level which could require reporting under the statute: Ammonium thiosulfate, acetic acid, sodium sulfite, aluminum sulfate

EPA TSCA Requirements:
All ingredients comply with EPA TSCA requirements.

SECTION 16- OTHER INFORMATION

Hazard Ratings: Degree of hazard (0= low, 4= extreme)

National Fire Protection Association (NFPA)
Health: 1 Flammability: 0 Reactivity: 0 Specific Hazard: None

Hazardous Materials Information System (HMIS)
Health: 1 Flammability: 0 Reactivity: 0 Protective Equipment: B

NOTE: NFPA and HMIS ratings are intended to permit speedy general identification of the extent of particular acute hazards. These hazard ratings involve interpretations of data which may vary between companies. All of the information contained in this MSDS must be considered in order to correctly address the safe handling of this product.

To the best of our knowledge, the information contained herein is accurate. However, the manufacturer does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.