MATERIAL SAFETY DATA SHEET

CLAYTON CHEMICAL COMPANY 13310 S. FIGUEROA ST. LOS ANGELES, CA 90061 (310) 538-9530 FAX: (310) 515-6517

CLAYTON°

SECTION I - Identification Product Name: Acetic Acid G		MSDS: unassigned. Date: January 10, 1992.		
Formula: unassigned Chemical Family: Aqueous Acidic Solution Medical Emergency Telephone: SUPERSEDE: una Transportation Emergency Telephone: (Chemtrec) 1 (800) 424-9300 SUPERSEDE DATE: April 1				
SECTION II - Hazardous Com Ingredients : Acetic Acid	— — — — — — — — — — — — ponents (Typical Values) CAS NO. 64-19-7	WT% 99	ACGIH(TLV) 10 ppm	OSHA(PEL) 10 ppm
SECTION III - Physical / Chen Boiling Point: Melting Point: Vapor Pressure: Vapor Density (AIR=1): Evaporation Rate: Volatile Fraction by Weight: Volatile Organic Compound:	nical Data 244.6°F 61.9° F (freezing) 11.65 mm Hg 2.07 Same as water Same as water Not Applicable	Specific Gra	Water (by Weight%): avity (H2O=1): Vapor Pressure: 3:	100% 1.05 Not Applicable Clear and colorless Slight sulfur dioxide
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak			nd unwind of fire Moor
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use.	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex	personnel removed a	contaminated equipment
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. 	o personnel removed a protecitve clothing. Dec	contaminated equipment
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Jnusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel tu self-contained breath after use. zards: Hydrogen, a highl acid on most mate	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct)	o personnel removed a protecitve clothing. Dec xplosive gas, is genera	contaminated equipment
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Jnusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns.	o personnel removed a protecitve clothing. Dec xplosive gas, is genera	contaminated equipment
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Jnusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation Cause severe irritation,	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin	o personnel removed a protecitve clothing. Dec xplosive gas, is genera	contaminated equipment
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation Cause severe irritation, Inhalation of mist cause	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritatio	o personnel removed a protecitve clothing. Dec xplosive gas, is genera	contaminated equipment te by the action of the
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Juusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Ingestion:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation Cause severe irritation, Inhalation of mist cause Cause irritation of the n	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritatio	o personnel removed a protecitve clothing. Dec xplosive gas, is genera	contaminated equipment te by the action of the
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Ingestion:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation Cause severe irritation, Inhalation of mist cause Cause irritation of the n	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes	o personnel removed a protecitve clothing. Dec xplosive gas, is genera 	contaminated equipment te by the action of the
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Ingestion: C. First Aid (Applies to finishe	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate 	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes plenty of running wan.	opersonnel removed a protecitve clothing. Dec xplosive gas, is genera 	contaminated equipment te by the action of the
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Ingestion: C. First Aid (Applies to finishe -Eyes: -Skin: -Inhalation:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate acid on most mate acid on most mate dote: Pertains to finished Pro Cause severe irritation Cause irritation of mist cause Cause irritation of the n ed Product) Immediately flush with Obtain medical attentio Flush affected areas pr clothing. For overexposure, reme	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes plenty of running wa n. omptly with water for ove to fresh air.	o personnel removed a protecitve clothing. Dec xplosive gas, is genera 	contaminated equipment te by the action of the severe stomach pain. utes; e contaminated
Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Ingestion: C. First Aid (Applies to finishe -Eyes: -Skin:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate acid on most mate cause severe irritation Cause irritation of the n ed Product) Immediately flush with Obtain medical attentio Flush affected areas pr clothing. For overexposure, reme Do not induce vomiting.	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes plenty of running wa n. omptly with water for ove to fresh air. . Give large quantiti	o personnel removed a protecitve clothing. Dec xplosive gas, is genera 	contaminated equipment te by the action of the severe stomach pain. utes; e contaminated
Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Ingestion: C. First Aid (Applies to finishe -Eyes: -Skin: -Inhalation: -Ingestion:	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate acid on most acid acid on most acid acid on most acid acid acid acid acid ac	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes plenty of running wa n. omptly with water for ove to fresh air. . Give large quantition nuconscious pers	o personnel removed a protecitve clothing. Dec xplosive gas, is genera 	contaminated equipment te by the action of the
 Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Jnusual Fire and Explosion Haz Jnusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Inhalation: -Inhalation: -Inhalation: -Inhalation: -Inhalation: O. Chronic Health Effects (No 	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation Cause severe irritation Cause severe irritation Cause severe irritation Cause irritation of the n ed Product) Immediately flush with Obtain medical attentio Flush affected areas pr clothing. For overexposure, rem Do not induce vomiting, anything by mouth to an ote: Pertains to each ingredi	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes plenty of running wa n. omptly with water for ove to fresh air. . Give large quantition nuconscious pers	o personnel removed a protecitve clothing. Dec xplosive gas, is genera 	contaminated equipment te by the action of the
 Flash Point: 109°F Open C Flammable Limits in Air: Extinguishing Media: Carbo Special Fire Fighting Procedure Unusual Fire and Explosion Haz Unusual Fire and Explosion Haz SECTION V - Health Hazard D A. Acute Exposure Effects (N -Eye contact: -Skin contact: -Inhalation: -Inhalation: -Skin: -Inhalation: -Inhalation: -Inhalation: O. Chronic Health Effects (No All Other Ingredients 	Cup. Lower: 5.40 Uppe on dioxide, dry chemical, ak s: Evacuate personnel to self-contained breath after use. zards: Hydrogen, a highl acid on most mate Data / Sara - Title III Hazard lote: Pertains to finished Pro Cause severe irritation Cause severe irritation Cause severe irritation Cause severe irritation Cause irritation of the n ed Product) Immediately flush with Obtain medical attentio Flush affected areas pr clothing. For overexposure, rem Do not induce vomiting, anything by mouth to an ote: Pertains to each ingredi	cohol foam or water o a safe area. Keep ing apparatus, full p y flammable and ex rials. d Categories oduct) and burns. burns and blisterin e respiratory irritation nucous membranes plenty of running wa n. omptly with water for ove to fresh air. . Give large quantition nuconscious pers ient listed in sectior	opersonnel removed a protecitve clothing. Dec xplosive gas, is genera 	eontaminated equipment te by the action of the

Stable. Strong alkalies, oxidizers, common metals. Carbon monoxide and dioxide, organic compounds in black smoke. Will not Occur.

SECTION VII - Disposal Information

Spili, Leak, or Release

NOTE: Review Section IV and Section VIII before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Dike spill. Prevent liquid from entering sewers, waterways or low areas. Soak up with sand, oil dry or other absorbent material. Spill may be neutralized with powdered Sodium Carbonate.

Waste Disposal

Recover nonusable free liquid and/or contaminated water, and dispose of in an approved and permitted treatment system. Remove nonusable solid material and/or contaminated soil, for disposal in an approved and permitted landfill. Discharge to sewer requires approval of permitting authority and may require pretreatment.

SECTIC A.	DN VIII - Special Protection Information Respiratory Protection:	Sufficient room ventilation.
C.	Skin and Eye Protection:	Splash protection is suggested, e.g., eyeglasses with side shields. gloves and aprons.

SECTION IX - Storage Conditions

Store in well ventilated area. Keep container tightly closed. Do not store with incompatible materials (See Section VI). Do not store or consume food, drink or tobacco in area where they may become contaminated with this material.

SECTION X - Hazardous Transportation Regulations

DOT: DOMESTIC	IMO/ICAO: INTERNATIONAL
Hazard Class:	CORROSIVE
Proper Shipping Name:	ACETIC ACID
UN Number:	UN2789
Label:	CORROSIVE

SECTION XI - Hazard Communication

SECTION XII - TSCA Information

TSCA Listing: All ingredients in this finished product are listed on the EPA TSCA Inventory (See Section II).

SECTION XIII - Federal EPA-SARA Title III Notification

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

Components present in this product at a level which could require reporting under the statute are:

Chemical

Cas No.

Upperbound Concentration - %

NONE

This information is furnished without warranty, expressed or implied, except that it is accurate to the best of the knowledge of Clayton Chemical Company. The data on this sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or any process. Clayton Chemical Company assumes no legal responsibility for use or reliance upon this data. The information herein is provided solely for your consideration, investigation and verification.