


Safety Data Sheet

Section 1. Identification	
Product Identification and Item Numbers:	Pyruvic Acid (PA)
Product Description:	Pyruvic Acid, 95% - 100% w/w
Recommended use and restrictions on use:	N/A
Supplier:	Delasco 608 13 th Avenue Council Bluffs, IA 51501 1-712-323-3269 www.delasco.com questions@delasco.com
In Case of Emergency, Contact:	Chemtrec (24 hour) 1-800-424-9300

Section 2. Hazard(s) Identification	
Classification:	Flammable Liquid (Category 4) Serious eye damage (Category 1) Skin Corrosion (Category 1B)
Labeling:	Hazard symbol(s):
	 <p>GHS05: corrosive</p>
Signal word:	Danger!
Hazard statements:	H227: Combustible liquid. H314: causes severe skin burns and eye damage
Precautionary statements:	P210: Keep away from heat/sparks/open flames/.../hot surfaces. ... No smoking. P264: Wash skin thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/ physician. P321: Specific treatment (see supplemental first aid instructions on this label). P363: Wash contaminated clothing before reuse. P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents/ container to an approved waste disposal plant.

Section 3. Composition/Information on Ingredients	
Chemical Name and Concentration:	Pyruvic acid ≤100%
Other Names, Common Names, Synonyms:	2-Oxopropionic acid A-Ketopropionic acid
CAS Number, other unique identifiers:	CAS# 127-17-3
Other classified impurities or stabilizers:	N/A
Other ingredients posing health hazards:	N/A
Concentration of other hazardous ingredients:	N/A

Section 4. First-aid Measures	
Inhalation exposure:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin exposure:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician
Eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Fire Fighting Measures											
Suitable / unsuitable extinguishing media:	For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.										
Specific hazards / combustion products:	Carbon oxides.										
Special protective equipment and precautions for fire-fighters:	Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers										
NFPA Hazard Classification	<table> <tr> <td>Health – 3</td> <td>0-Minimal</td> </tr> <tr> <td>Flammability – 2</td> <td>1-Slight</td> </tr> <tr> <td>Instability – 0</td> <td>2-Moderate</td> </tr> <tr> <td></td> <td>3-Serious</td> </tr> <tr> <td></td> <td>4-Severe</td> </tr> </table>	Health – 3	0-Minimal	Flammability – 2	1-Slight	Instability – 0	2-Moderate		3-Serious		4-Severe
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Section 6. Accidental Release Measures	
Personal precautions and protective equipment:	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.
Containment / clean up methods:	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.

Section 7. Handling and Storage	
Precautions for safe handling:	Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.
Conditions for safe 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. Recommended storage temperature 2 - 8 °C Handle and store under inert gas. Air and light sensitive. Moisture sensitive.
Incompatibilities to avoid:	No data available.

Section 8. Exposure Controls and Personal Protection	
OSHA Permissible Exposure Limit (PEL):	N/A
Threshold Limit Value (TLV):	N/A
Other exposure limits:	N/A
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:	<p>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).</p> <p>Eye/face protection Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p> <p>Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.</p> <p>Full contact Material: Chloroprene Minimum layer thickness: 0.6 mm Break through time: 480 min Material tested: Camapren® (KCL 722 / Aldrich Z677493, Size M)</p> <p>Splash contact Material: Nature latex/chloroprene Minimum layer thickness: 0.6 mm Break through time: 120 min Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)</p> <p>data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.</p> <p>Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p>
Other personal protection measures:	Provide nearby eyewash station and safety shower.

Section 9. Physical and Chemical Properties	
Appearance (physical state, color, etc.):	liquid
Molecular weight:	88.06 g/mol
Odor:	No data available.
Odor threshold:	No data available.
pH:	No data available
Melting point / freezing point:	11 - 12 °C (52 - 54 °F)
Initial boiling point and boiling range:	165 °C (329 °F)
Flash point:	82 °C (180 °F) - closed cup
Evaporation rate:	No data available
Flammability	No data available
Upper / lower flammability or explosive limits:	No data available
Vapor Pressure:	No data available
Vapor density:	No data available
Relative density:	1.267 g/cm ³ at 25 °C (77 °F)
Solubility:	No data for water solubility
Partition coefficient: n-octanol/water:	No data available.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available.
Viscosity:	No data available.

Section 10. Stability and Reactivity	
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid (static, shock, vibration...)	Air Light. Heat, flames and sparks.
Incompatible materials:	Bases, Oxidizing agents, Reducing agents
Hazardous decomposition products:	Other decomposition products - No data available

Section 11. Toxicological Information	
Routes of exposure:	Ingestion, inhalation, skin and/or eye contact.
Acute Symptoms (acute):	Described in detail in section 2.
Symptoms (chronic): Chronic effects from short and long term exposure:	Described in detail in section 2.
Numerical measures of toxicity (e.g., acute toxicity estimates):	Acute toxicity Inhalation: No data available Dermal: No data available LD50 Subcutaneous – Mouse – 3,533 mg/kg Skin corrosion/irritation : No data available Serious eye damage/eye irritation: No data available Respiratory or skin sensitization: No data available Germ cell mutagenicity: No data available
NTP carcinogen:	No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
EPA carcinogen:	No data available.
ACGIH carcinogen:	No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
IARC potential carcinogen:	No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA carcinogen:	No component of this product presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information (Non-mandatory)	
Ecotoxicity (aquatic and terrestrial, where available):	Not available.
Persistence and degradability:	Not available
Bioaccumulative potential:	Not available
Mobility in soil:	Not available
Other adverse effects:	Not available

Section 13. Disposal Considerations (Non-mandatory)	
Safe methods of disposal:	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transport Information (Non-mandatory)						
US DOT	UN number:	3265	Class:	8	Packing Group:	II
UN proper shipping name:		Corrosive liquid, acidic, organic, n.o.s. (Pyruvic acid)				
Packing group, if applicable:		II				
Environmental hazards (marine pollutant, etc...)		Not available				
Special transport precautions:		N/A				

Section 15. Regulatory Information (Non-mandatory)	
Specific safety, health, and environmental regulations:	SARA 311/312 Hazards Fire Hazard, Acute Health Hazard Pennsylvania Right To Know Components Pyruvic acid New Jersey Right To Know Components Pyruvic acid

Section 16. Other information	
Date of preparation or last revision:	October 3, 2018