

## SAFETY DATA SHEET

### GLUTERALDEHYDE 50%

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking Trade name:

<b>1.1 Product identifier:</b>	
<b>CAS Number:</b>	111-30-8
<b>EC number:</b>	203-856-5
<b>1.2 SYNONYMS:</b>	<ul style="list-style-type: none"> <li>• Pentanal dialdehyde</li> <li>• 1,5-Pentanedial</li> <li>• Glutaric aldehyde</li> <li>• Butane-1,4-dialdehyde</li> <li>• 1,5-Dialdehyde pentane</li> <li>• 1,5-Dialdehyde</li> </ul>

#### SECTION 2: Hazards identification:

<b>2.1 Classification of the substance or mixture:</b>	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
<b>2.2 Label elements:</b>	<p>Labelling according to Regulation (EC) No 1272/2008</p> <p>Acute toxicity, Oral (Category 3) Acute toxicity, Inhalation (Category 3) Skin corrosion (Category 1B) Respiratory sensitization (Category 1) Skin sensitization (Category 1) Specific target organ toxicity - single exposure (Category 3) Acute aquatic toxicity (Category 1) Toxic by inhalation and if swallowed. Causes burns. May cause sensitization by inhalation and skin contact. Very toxic to aquatic organisms</p>
<b>Hazard Pictograms:</b>	
<b>Signal Word:</b>	Warning
<b>Hazard statements:</b>	<p><b>H301 + H331:</b> Toxic if swallowed or if inhaled</p> <p><b>H314:</b> Causes severe skin burns and eye damage.</p> <p><b>H317:</b> May cause an allergic skin reaction.</p> <p><b>H334:</b> May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p><b>H335:</b> May cause respiratory irritation.</p> <p><b>H400:</b> Very toxic to aquatic life.</p>
<b>Precautionary Statements:</b>	<p><b>P261:</b> Avoid breathing vapours.</p> <p><b>P273:</b> Avoid release to the environment.</p>

	<p><b>P280:</b> Wear protective gloves/ protective clothing/ eye protection/ faceprotection.</p> <p><b>P301 + P310:</b> IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</p> <p><b>P305 + P351 + P338:</b> IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p><b>P310:</b> Immediately call a POISON CENTER or doctor/ physician</p>
<b>2.3 Other hazards:</b>	
<b>Inhalation:</b>	may cause respiratory irritation, dizziness, headache, or nausea.
<b>Ingestion:</b>	can cause severe gastrointestinal irritation, nausea, vomiting, abdominal pain, and potentially more serious effects such as organ damage or systemic toxicity.
<b>Skin Contact:</b>	can cause severe irritation, burns, and allergic reactions, leading to redness, swelling, and blistering.
<b>Eye contact:</b>	can cause severe irritation, redness, pain, and possible damage to the cornea, leading to potential vision impairment.
<b>Chronic Exposure:</b>	may lead to respiratory sensitization, skin allergies, and long-term irritation of the eyes, skin, or respiratory tract.
<b>Aggravation of pre-existing conditions:</b>	may aggravate pre-existing skin conditions, such as eczema or dermatitis.

### SECTION 3: Composition/information on ingredients

<b>3.1 Chemical characterisation:</b>	Substances
<b>CAS No:</b>	Description: 111-30-8 GLUTERALDEHYDE 50% 7732-18-5- WATER 50%
<b>Identification number(s):</b>	EC number: 203-856-5

### SECTION 4: First aid measures

<b>4.1 Description of first aid measures</b>	
<b>General information:</b>	
<b>After inhalation:</b>	If breathed in, move person into fresh air. Consult a physician
<b>After skin contact:</b>	Remove contaminated clothes, rinse skin with plenty of water. Consult a physician.

<b>After eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, Holding eyelids during flushing. consult a physician.
<b>After swallowing:</b>	Rinse mouth with water. Immediately after ingestion. Give lots of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	Acute exposure to 50% glutaraldehyde can cause severe skin and eye irritation, respiratory distress, and toxicity if inhaled or ingested, while chronic exposure
	may lead to respiratory sensitization, allergic reactions, and potential organ damage, especially to the liver and kidneys.
<b>4.3 Indication of any immediate medical attention and special treatment needed:</b>	Treat symptomatically.

## SECTION 5: Firefighting measures

<b>5.1 Extinguishing media:</b>	Carbon dioxide. Water spray. Alcohol-resistant foam. Dry chemical or foam.
<b>5.2 Special hazards arising from the substance or mixture:</b>	Fire or excessive heat may cause production of hazardous decomposition products.
<b>5.3 Advice for firefighters:</b>	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
<b>5.4 further information:</b>	No data available

## SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	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 vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
<b>6.2 Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

<b>6.3 Methods and material for containment and cleaning up:</b>	<p>Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone.</p> <p>Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling</p>
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## SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling:</b>	<p>Protect from heat and direct sun exposures</p> <p>Make sure that there is no sunlight coming inside the space.</p> <p>Electrostatic discharge protection.</p> <p>Minimize dust generation and accumulation.</p> <p>Avoid ingestion and inhalation.</p> <p>Avoid contact with eyes and skin. Do not Breathe dust.</p>
<b>7.2 Conditions for safe storage, including any incompatibilities:</b>	<p>Store in original containers.</p> <p>Keep containers securely sealed</p> <p>Store in a cool, dry, well-ventilated area.</p> <p>Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.</p> <p>Store in a dry and dark area. . Provide for a tub to collect spills.</p>
<b>Requirements to be met by storerooms and receptacles:</b>	<p>Keep container tightly closed in a dry and well-ventilated place.</p> <p>Containers which are opened must be carefully resealed and kept upright to prevent leakage.</p>
<b>7.3 Specific end uses:</b>	no data available

## SECTION 8: Exposure controls/personal protection

<b>8.1 Control parameters</b>	
<b>Additional information about design of technical facilities:</b>	A system of local and general exhaust is recommended.
<b>8.2 Exposure controls</b>	
<b>Appropriate engineering controls</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<b>Personal protective equipment:</b>	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
<b>General protective and hygienic measures:</b>	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	<b>Respiratory protection:</b> Required.
<b>Protection of hands:</b>	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. Wash and dry hands.
	<b>Eye protection:</b> Required
<b>Protection of Body:</b>	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance: Form:</b>	Liquid, clear
<b>Colour:</b>	Colourless
<b>Odour:</b>	Strong, pungent odour
<b>pH-value:</b>	3
<b>Melting point/Melting range:</b>	-21°C
<b>Boiling point/Boiling range:</b>	101°C
<b>Flammability (solid, gaseous):</b>	No data available
<b>Ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Self-igniting:</b>	No data available
<b>Flash point:</b>	No data available
<b>Danger of explosion:</b>	No data available
<b>Explosion limits: Lower:</b>	No data available
<b>Explosion limits: Upper:</b>	No data available
<b>Vapour pressure:</b>	20 hPa at 20°C
<b>Density at 20 °C:</b>	1.10

<b>Relative density:</b>	1.10
<b>Vapour density:</b>	3.46
<b>Evaporation rate:</b>	No data available
<b>Solubility in / Miscibility with- water at 20 °C:</b>	Miscible
<b>Partition coefficient:(n-octanol/water)</b>	-0.48
<b>Viscosity:</b>	No data available

### SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	No data available
<b>10.2 Chemical stability</b>	No data available.
<b>10.3 Possibility of hazardous reactions</b>	No data available
<b>10.4 Conditions to avoid</b>	No data available.
<b>10.5 Incompatible materials</b>	Strong acids, Strong bases, Strong oxidizing agents
<b>10.6 Hazardous decomposition products</b>	No data available

### SECTION 11: Toxicological information

<b>11.1 Information on toxicological effects</b>	
<b>Acute Toxicity:</b>	<b>LD50 (Oral, Rat) :</b> No data available <b>LD50 (Dermal, Rabbit) :</b> No data available <b>LC50 (Inhalation Rat) :</b> No data available
<b>Skin corrosion/Irritation:</b>	May cause allergic skin reaction.
<b>Serious eye damage/irritation:</b>	No data available
<b>Respiratory damage/irritation:</b>	May cause allergic respiratory reaction.
<b>Ingestion:</b>	May cause gastrointestinal irritation
<b>Germ cell mutagenicity:</b>	No data available
<b>Carcinogenicity:</b>	No data available
<b>Reproductive toxicity:</b>	No data available
<b>Specific target organ toxicity - single exposure:</b>	No data available
<b>Specific target organ toxicity - repeated exposure:</b>	No data available
<b>Aspiration hazard:</b>	No data available
<b>Signs and Symptoms of Exposure:</b>	Refer section 2.3
<b>11.2 Additional toxicological information</b>	
<b>Biodegradability:</b>	Biodegradable in aerobic environments.

## SECTION 12: Ecological information

<b>12.1 Toxicity</b> <b>Aquatic toxicity:</b>	No data available.
<b>12.2 Persistence and degradability:</b>	No data available
<b>12.3 Bioaccumulative potential:</b>	No data available
<b>12.4 Mobility in soil:</b>	No data available
<b>12.5 Other adverse effects:</b>	Very toxic to aquatic life.

## SECTION 13: Disposal considerations

<b>13.1 Waste treatment methods</b>	
<b>Uncleaned packaging Recommendation:</b>	dispose of in accordance with local hazardous waste regulations
<b>Recommended cleansing agents:</b>	<b>Mild Soap and Water</b> , isopropyl alcohol, acetone, Commercial cleaning agents.

## SECTION 14: Transport information

<b>14.1 UN-Number · ADR, ADN, IMDG, IATA:</b>	3265
<b>14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:</b>	Glutaraldehyde
<b>14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :</b>	8
<b>14.4 Packing group · ADR, IMDG, IATA:</b>	2
<b>14.5 Environmental hazards:</b>	Very toxic for aquatic life.
<b>14.6 Special precautions for user:</b>	Handle responsibly.

## SECTION 15: Regulatory information

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b> <b>Directive 2012/18/EU</b>	Directive 2012/18/EU, under that this substance is not classified in listed substance.
<b>Named dangerous substances:</b>	This substance is not listed in the annex 1 to the directive.
<b>15.2 Chemical safety assessment:</b>	Chemical assessment has not been carried out.

## SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.