MATERIAL SAFETY DATA SHEET

(Rev.I-Aug-2019)

Benzaldehyde PG Acetal

Section 1: IDENTIFICATION OF THE SUBSTANCE AND OF COMPANY

Product Name	Benzaldehyde PG Acetal
Chemical Name	4-methyl-2-phenyl-1,3-dioxolane
CAS No.	2568-25-4
EC No.	219-906-4
Usage	In flavors and fragrances. Not intended for final consumer.
Manufacturer	Breeze Intermediates Pvt. Ltd.
	Z-39, Dahej SEZ, Dahej, Ta. Vagra, Dist. Bharuch (Guj.) India
	Tel.: +91 9825107638. Email: <u>qc@breezeipl.com</u>
Emergency telephone no.	+91 9825107638, +91 8155088809, +919925031257

Section 2: HAZARDS IDENTIFICATION

Classification as per EC No. 1272/2008	Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
Label elements including precautionary statement	Siganl word: - Warning Hazard statements: - H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements: - P261 Avoid breathing vapours. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Risk Phrases	R-36/37/38 – Irritantating to eyes, respiratory system and skin
HMIS Classification	Health hazard: 2 Flammability: 1 Physical hazards: 0
Potential Health Effects	Primary routes of exposure: Eyes, Skin Effects of exposure: May be irritating to the skin and eyes. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort. Vapors or mist, in excess of permissible concentration, or in unusually high concentration generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the throat and nose, headache, nausea and drowsiness.
Other Hazards	The product does not contain substances included in the Substances of Very High Concern list (> 0.1 % w/w).

Section 3: INFORMATON ON INGREDIENTS

Concentration of the constituent (%wt/wt)	95-100%
Chemical name	Benzaldehyde PG Acetal
Chemical Entity	Aryl substituted primary alcohol/aldehyde/acid/ester/acetal
	derivatives, including unsaturated ones.
Molecular Formula	$C_{10}H_{12}O_2$ (M.W.= 164.20 g/mol)
CAS No.	2568-25-4
EC/EINECS No.	219-906-4
FEMA	2130

Section 4: FIRST AID MEASURES

Consumption (Ingestion)	If swallowed, rinse mouth with water (only if the person is
	conscious). Seek medical advice immidiately.
	Do not induce vomiting.
Eye Exposure	First rinse with plenty of water for several minutes
	(remove contact lenses if easily possible), then take to a
	doctor.
Inhalation	If inhaled, remove person to fresh air.
	If not breathing give artificial respiration.
	If breathing is difficult, give oxygen.
Skin Exposure	Wash immediately affected area with soap and plenty of
	water. Seek medical advice if irritation, pain, swelling,
	lacrimation or photophobia persists.
Most important symptoms and effects, both	Symptoms on inhalation: Choking, drowsiness, respiratory
acute and delayed	disruptions.
	Symptoms on eye contact: Irritation, reddening.
	Symptoms on skin contact: Irritation, stinging.
	Symptoms on ingestion: queasiness, stomach aches.
Immediate medical attention special treatment	Not applicable.
Others	Take Risk and Safety Phrases (section 15) into account

Section 5: FIRE-FIGHTING MEASURES

Extinguishing Media	Water spray, Alcohol-resistant foam, carbon dioxide, dry chemical powder or appropriate foam. For safety reasons do not use full water-jet.
Hazards arising from the substance	Not applicable.
Combustible Liquid	Keep away from source of heat, flame or spark. Cool endengered drums with water.
Advices for firefighters	In case of fire on the surrounding, follow the instructions: 1-Closed containers may build up pressure at elevated temperatures. 2-Avoid inhalation of generated fumes or vapors. Use apropriate respiratory equipment. 3-Do not allow the spillage of the fire extinguishing to sink into a drainage system or water area.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective	Handle the product using protective gloves resistant to the the chemicals
equipment and emergency	exposed. Avoid contact with skin and inhalation of its vapours or smoke.
procedures	Maintain adequate ventilation in the working area after spilling.
Environmental precautions	To avoid possible contamination of the environment, Do not discharge into
	any drains, surface waters or groundwaters
Methods and material for containment and cleaning up	Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash). Place in covered containers using non-sparking tools and transport outdoors. Avoid open flames or sources of ignition (e.g. pilot lights on gas hot water heater). Ventilate area and wash spill site after material pickup is complete. Dispose of in accordance with current laws and regulations.
Reference to other sections	Refer to section 13 Disposal considerations

Section 7: HANDLING AND STORAGE

Precautions for safe	Keep away from food, drink and animal feedingstuffs. When using do not smoke.
handling	Avoid contact with skin and eyes.
_	Handle in accordance with good industrial hygiene and safety practice.
Condition for Storage	Should be stored in tightly sealed and preferably full containers in a cool, well-
	ventilated, dry place, out of direct rays of the sun, Away from areas of high fire
	hazard, & should be periodically inspected. Incompatible materials should be isolated
	from each other.
Specific end use(s)	Not available

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	Declaration of substances is not required.
Exposure controls	Personal protection equipment: Use personal protection equipment according to Directive 89/686/EEC.
	Eye/Face protection: Chemical safety goggles are recommended. Wash contaminated goggles before reuse.
	Respiratory Protection: Use personal breathing apparatus whenever deemed
	necessary. <u>Skin Protection:</u> Avoid contact with skin. Compatible chemical-resistant gloves are recommended. Wash contaminated gloves before reuse.
	Engineering Controls-Ventilation: The areas where the product is handled and stored should be adequately ventilated.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless to pale yellow clear liquid	
Odor	Characteristic, bitter, mild fruity, floral odor	
pH value	No data available	
Boiling point	125 °C @ 24 mmHg	
Melting point	No data available	
Flash point (closed cup)	>110 °C.	
Vapour Pressure	0.053000 mm/Hg @ 20.00 °C.	
Vapour Density	5.7 (Air=1)	
Solubility in Water	Insoluble	

Specific Gravity	1.0610-1.0710 @ 25.00 °C.
Partition Coefficient (Octanol/Water)	2.119 (est.)

Section 10: STABILITY AND REACTIVITY

Chemical stability	Stable under normal operational condition.	
	Oxidized slowly on exposure to heat, light and air.	
Reactivity	Heat, excessive heat, open flames and other sources of ignition.	
	Strong oxidizing agents, strong reducing agents.	
Incompatibility	Does not react with water. Avoid contact with strong oxidizing mineral acids,	
	strong reducing agents.	
Hazardous decomposition	Hazardous combustion or decomposition products:	
Products	carbon oxides and other unidentified organic compound.	

Section 11: TOXOLOGICAL INFORMATION

Acute toxicity	LD50 Oral - Rat - 3.000 mg/kg
	LD50 Dermal - Rabbit - > 5.000 mg/kg
Inhalation Toxicity (LD ₅₀)	No data available
Skin corrosion/irritation	No data available
Human Experience	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.
Reproductive toxicity	No data available
Specific target organ toxicity single exposure (GHS)	No data available
Specific target organ toxicity repeated exposure (GHS)	No data available
Aspiration hazard	No data available
Potential health effects	Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Ingestion: Harmful if swallowed. Skin: May be harmful if absorbed through skin. Causes skin irritation. Eyes: Causes eye irritation.
Signs and Symptoms of Exposure	No data available
Additional Information	No data available

Section 12: ECOLOGICAL INFORMATION

General	Prevent contamination of soil, ground and surface waters.		
	Do not discharge product unmonitored into the environment.		
Acute aquatic Toxicity	No data available		
Persistence and degradability	No data available		
Bioaccumulative potential	No data available		
Mobility in soil	No data available		
PBT and vPvB assessment	No data available		
Other adverse effects	Do not allow the material to enter streams, sewers or other waterways		

Section 13: DISPOSAL CONSIDERATION

Product Disposal	Dispose of according all federal, state, and local environmental regulations.		
	Contact a licensed professional waste disposal service to dispose of this material.		
Packaging	Don not re-use empty containers. Empty residue into a suitable disposal site.		
	Contaminated packaging should be disposed of as unused product.		

Section 14: TRANSPORT INFORMATION

International Carriage of Dangerous Goods by Road (ADR)				
UN No.	N/A			
Proper Shipping Name	Not subject to ADR. Not dangerous goods			
Packing Group				
Class				
Tunnel restriction code				
Label				
Air Transport (ICAO/IATA)				
UN No.	N/A			
Proper Shipping Name	Not restricted, Not dangerous goods			
Class				
Packing Group				
Sea Transport (IMDG)				
UN No.	N/A			
Proper Shipping Name	Not restricted, Not dangerous goods			
Class				
Packing Group				
EmS				
Marine Pollutant	No			

Section 15: REGULATORY INFORMATION

Safety, health and environmental	Substance(s) is (are) either included in EINECS, ELINCS,			
regulations/legislation specific for the substance	NPL inventories or exempted			
Hazard Symbol				
Risk Phrases	R 36 - Irritating to eyes.			
Safety Phrases	S 26 – Keep out of the reach of children			
	S 26 - In case of contact with eyes, rinses immediately			
	with plenty of water and seeks medical advice.			
	S 36 – wear suitable protective clothings			
WGK Germany	2			
Chemical safety assessment	Not available			

Section 16: OTHER INFORMATION

Hazardous materials identification system	Fire: 1	Health: 2	Reactivity: 0	Personal Protection: B		
This material should be used for industrial purposes only.						

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