



Safety Data Sheet

Supersedes:27/11/2023		Revision: 1.3	Revisiondate:12/12/2023	Biorefineries Ltd
SECTION 1: Identification				
1.1Identification				
Product form	:	Substance		
Substance name	:	3-Methoxy butanol		
CAS No.	:	2517-43-3		
EC/ List No.	:	219-741-8		
Formula	:	$C_5H_{12}O_2$		
Molecular weight	:	104.15 g/mol		
Synonyms	:	3-methoxybutan-1-ol		
1.2 Relevant identified uses of the s	subs	tance or mixture and uses advi	sed against	
Use of the substance/mixture	:	Laboratory chemicals, Manufac	cture of substances	
Relevant identified uses	:	Intermediate		
Uses advised against:	:	Not known		
1.3Details of the supplier of the safe	ety d	atasheet		
Godavari Biorefineries Ltd. 45/47, Somaiya bhavan, Mahatma Gandhi Road, Fort, Mumbai -400001, INDIA. T 0091 22 22048272 Email: <u>alka@somaiya.com</u> www.somaiya.com				
1.4Emergency telephone Number				
Emergency number	:	0091 2423 279308 0091 22 22048272 (Monday –	Friday - 09.30 hrs to 18.00 hrs)	
SECTION 2: Hazard(s) identifica	ation			
GHS classification				
2.1Classification of the substance of	or mi	xture		
Acute toxicity-Oral, Category 5 Flammable liquids, Category 4		H303 H 227		
2.2 GHS labeling				
Hazard Pictograms (GHS)	:	GHS 02		
Signal Word (GHS)	:	Warning		
Hazard Statements (GHS)	:	H227 –Flammable liquid.		
	:	H303 – May be harmful if swall	owed.	
Precautionary Statements (GHS)	:	-	parks/open flames/hot surfaces. No s	mokina
			'eye protection/ face protection.	
	•			
	:	P240: Ground/bond container a		
	:	P243: Take precautionary mea	sures against static discharge.	
	:	P280: Wear protective gloves/p	protective clothing/eye protection/face	e protection.



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	:	P303+P361+P353: IF ON SKIN clothing. Rinse SKIN with wate	۱ (or hair): Take off Immediately all cc r [or shower].	ontaminated
	:	P301+ P317 - IF SWALLOWE	D: Get medical help	
	:	P370+P378 - In case of fire: Us to extinguish.	se dry sand, dry chemical or alcohol-r	esistant foam
	:	P403+P235 - Store in a well-ve	entilated place. Keep cool.	
	:	P501 - Dispose of contents/ co	ntainer to an approved waste disposa	I plant
Supplemental Hazard information	:	None		
2.3 Other hazards				

Not data available.

### 2.4 Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/Inform	mation on ingredients		
3.1 Substance			
Name	Product Identifier CAS No. EC No.	Concentration %	GHS Classification
3-Methoxy butanol	2517-43-3 219-741-8	>99.0%	Acute Tox. Oral Cat. 5, H303, Flam. Liq.Cat. 4, H227

Full text of hazard classes and H-statements: see section 16

### 3.2. Mixture

Not applicable.

SECTION 4: First aid measured	res	
4.1Description of first aid meas	ures	
General information	:	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	:	If breathed in, move person into fresh air. Consult a physician after significant exposure.
Skin contact	:	If skin irritation persists, call a physician. After contact with skin, wash immediately with plenty of soap and water.
Eye contact	:	Call a physician immediately. Rinse immediately with plenty of water, also under the eyelids.
Ingestion	:	Do not induce vomiting without medical advice. Immediately give large quantities of water to drink. Call a physician immediately.
4.2 Most important symptoms a	nd effec	ts, both acute and delayed
No data available		
4.3 Indication of any immediate	medical	attention and special treatment needed
No data available		

SECTION 5: Firefighting measu	res	
5.1Extinguishing media		
Suitable extinguishing media	:	Dry powder, Foam, Carbon dioxide (CO2)
Unsuitable extinguishing media	:	Do not use a solid water stream as it may scatter and spread fire



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5.2 Special hazards arising from the	substance or mixture
Heating or fire can release toxic gas	
Hazardous combustion products	: Carbon oxides
5.3 Advice for firefighters	
Firefighting instructions	: Wear self-contained breathing apparatus for firefighting if necessary
5.4 Additional information	
Use water spray to cool unopened cont	
SECTION 6: Accidental release m	easures
6.1Personal precautions, protective e	equipment and emergency procedures
Use personal protective equipment. Ave ignition. Wear personal protective equip	bid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of oment.
6.2 Environmental precautions	
Prevent product from entering drains.	
6.3 Methods and material for contain	ment and cleaning up
Soak up with inert absorbent material e	.g. sand, silica gel, acid binder, universal binder, sawdust).
6.4 Reference to other sections	
For personal protection see section 8	
<b>SECTION 7: Handling and storage</b>	e
7.1 Precautions for safe handling	
Precautions for safe handling	: Provide sufficient air exchange and/or exhaust in work rooms. Keep away from sources of ignition. No smoking. Take necessary action to avoid static electricity discharge. In case of fire, emergency cooling with water spray should be available. Temperature class: T2
7.2 Conditions for safe storage, inclu	
Requirements for storage areas and con German storage class: 10: Combustible	ntainers: Keep container tightly closed in a dry and well-ventilated place. Iquids not listed in class 3A or 3B
7.3 Specific end uses	
No data available	
SECTION 8: Exposure controls/pe	ersonal protection
8.1 Control parameters	
8.1.1 Occupational exposure limits:	
Contains no substances with occupation	nal exposure limit values.
8.2 Exposure controls	
Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Material should be handled safely.

Personal protective equipment

:

Materials for protective clothing

- Protective goggles. Gloves. Protective clothing. Face shield. Gas mask with filter.
- GIVE EXCELLENT RESISTANCE: Butyl Rubber. Polyethylene/Ethylene Vinyl : Alcohol. Viton. GIVE GOOD RESISTANCE: Neoprene. GIVE LESS RESISTANCE: Natural Rubber. PVC. GIVE POOR RESISTANCE: Polyethylene. PVA.





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Hand protection	:	Gloves.		
Eye protection	:	Safety glasses.		
Skin and body protection	:	Head/neck protection. Corrosio	n-proof clothing.	
Respiratory protection	:	Wear gas mask with filter type concentration: self-contained re	A if conc. in air > exposure limit. Hi spirator.	gh vapour/ gas
Thermal hazard protection	:	None.		

SECTION 9: Physical and chemical properties			
9.1 Information on basic physical a	nd c	hemical properties	
Physical state	:	Liquid	
Appearance	:	Liquid	
Colour	:	Colourless	
Odour	:	No Data Available	
рН	:	No Data Available	
Melting point	:	No Data Available	
Freezing point	:	-85 °C	
Initial boiling point/boiling range	:	157°C at 1.013 hPa	
Flash Point	:	67 °C – closed cup	
Relative evaporation rate	:	No Data Available	
Relative density	:	0.923 g/mL at 23 °C	
Relative vapour density at 20°C	:	No Data Available	
Specific gravity/ density	:	No Data Available	
Molecular mass	:	104.15 g/mol	
Flammability(Solid, Gas)	:	No Data Available	
Upper/lower flammability or Explosive limit	:	No Data Available	
Solubility	:	No Data Available	
Vapor pressure	:	0.17 hPa at 20°C	
Vapour density	:	No Data Available	
Evaporation Rate	:	No Data Available	
Partition coefficient n-octanol/water	:	log Pow: 0.002 at 20°C	
Auto-ignition temperature	:	305 °C	
Decomposition temperature	:	No Data Available	
Viscosity	:	3.68 mPa.s (20°C)	
Explosive Limits	:	No Data Available	
Oxidizing properties	:	No Data Available	

### 9.2 Other information

No Data Available



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SECTION 10: Stability and reactivity	Į		
10.1Reactivity :	No Data Available		
10.2 Chemical Stability :	Stable under recommended s	storage conditions	
10.3 Possibility of hazardous :	No Data Available	0	
reactions		ources of ignition. Avoid contact wit	h heat sparks
10.4 Conditions to avoid	open flame, and static discha		n noui, opuno,
10.5 Incompatible materials	Oxidizing agents, Peroxides,	Acids and bases	
10.6 Hazardous decomposition : products	Carbon dioxide.		
SECTION 11: Toxicological informa	tion		
11.1 Information on toxicological effect	s		
LD50 oral toxicity :	Species: Rat Value: >2000 m	g/kg Method: OECD Guideline 401	
LC50 inhalation toxicity :	Species: cat Value: 6200 mg/	/m3	
Skin corrosion/irritation :	Species: Rabbit Classification	n: non-irritant	
Serious eye damage/irritation :	Nonirritant.		
Respiratory or skin sensitization :	Irritant		
Germ cell mutagenicity :	No data available		
Carcinogenicity :	0.1% is identified as probable ACGIH: No component of th 0.1% is identified as a carcine NTP: No component of this 0.1% is identified as a known OSHA: No component of thi	s product present at levels greater the, possible or confirmed human carcin is product present at levels greater t ogen or potential carcinogen by ACGI product present at levels greater th or anticipated carcinogen by NTP. s product present at levels greater th ogen or potential carcinogen by OSHA	ogen by IARC. han or equal to H. han or equal to han or equal to
Teratogenicity :	No data available.		
Reproductive toxicity :	No data available.		
Specific target organ toxicity(single exposure)	No data available.		
Specific target organ toxicity (repeated exposure)	No data available.		
Aspiration hazard :	No data available.		
Signs and Symptoms of Exposure :	Not data available.		
Synergistic effects :	Not data available.		
SECTION 12: Ecological informatio	n		
12.1 Toxicity			
Toxicity to Fish LC50	: >100 mg/l channel catfish	n fingerlings 96 h	
Toxicity to Microorganisms EC10	: Species: in activated sluc	lge Value: 155 mg/L Exposure time: 3	h
Toxicity to aquatic invertebrates EC50	: >100 mg/l Daphnia mag	na 48 h	



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12.2 Persistence and degradabi	lity			
No Data Available.				
12.3 Bio accumulative potential				
No Data Available.				
12.4 Mobility in soil				
No Data Available.				
12.5 Results of PBT and vPvB a	ssessm	ent		
No Data Available.				
12.6 Other adverse effects				
No data available.				
SECTION 13: Disposal consi	deratio	ns		
13.1 Waste treatment methods				
Product disposal	:	local regulations. The choice of the product composition by the	ice with all waste management rel of the appropriate method of dispose time of disposal as well as the loc surplus and non-recyclable solution	sal depends of al statutes an
Packaging:	:	Dispose of as unused product.		
SECTION 14: Transport Infor	mation			
Marine transport (IMDG)				
UN number	:	UN1987		
Proper shipping name and description	:	ALCOHOLS liquid, N.O.S. (3-M	ethoxy butanol)	
Class	:	3		
Packaging group	:	III		
Hazard Identification Number	:	-		
EmS code	:	F-E, S-D		
Marine pollutant	:	No		
Air transport ICAO/IATA				
UN number	:	UN1987		
Proper shipping name and description	:	ALCOHOLS liquid, N.O.S. (3-M	ethoxy butanol)	
Class	:	3		
Packaging group	:	III		
Hazard Labels	:	-		
Environmentally hazardous	:	No		
Department of Transportation (DOT)				
UN number	:	UN1987		
Proper shipping name and description	:	ALCOHOLS liquid, N.O.S. (3-M	ethoxy butanol)	



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Class	:	3		
Packaging group	:	111		
Reportable Quantity (RQ)	:	Not applicable		
Poison Inhalation Hazard	:	No 3 - Flammable liquid		

Hazard labels (DOT)



SECTION 15: Regulatory information					
15.1.1 National regulations					
Country	National Inventories	Listing			
CANADA	DSL	Listed			
CHINA	IECSC	Listed			
JAPAN	ENCS	Listed			
PHILIPPINES	PICCS	Listed			
SOUTH KOREA	KECI	Listed			
USA	TSCA	Listed			
EUROPE	EINECS	Listed			
NEWZEALAND	NZIoC	Listed			
JAPAN	ISHL	Listed			
AUSTRELIA	AICS	Listed			

### **SECTION 16: Other information**

### 16.1Hazard Statement

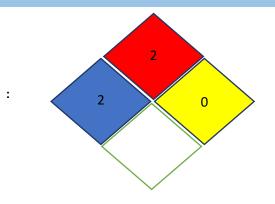
H227

: Flammable liquid Category 4

H303

: Acute toxicity - Oral, Category 5

16.2NFPA Rating





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### 16.3Abbreviations and acronyms

PBT =Persistent Bioaccumulative and Toxic

vPvB= Very Persistent and Very Bioaccumulative

SCBA= Self Contained Breathing Apparatus

NIOSH REL= National Institute for Occupational Safety and Health: Recommended Exposure Limit OSHA PEL=Occupational Safety and Health Adminstration Permissible Exposure Limit

OELTWA= Occupational Exposure Limit Time Weighted Averages

IDLH= Immediately Dangerous to Life or Health

UEL= Upper Explosive Limit

LEL= Lower Explosive Limit

RTECS= Registry of Toxic Effects of Chemical Substances

NTP=National Toxicology Programm

IARC= International Agency for Research on Cancer

EPA=Environmental Protection Agency

TSCA= Toxic Substances Control Act

NFPA= National Fire Protection Association

CSR=Chemical Safety Report

BCF = Bio Concentration Factor

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

TLV = Threshhold Limit Value

ACGIH = American Conference of Governmental Industrial Hygienist

REACH = Registration, Evaluation .Authorisation and Restriction of Chemicals

CLP = Classification, Labelling and Packaging

LD / LC = Lethal Doses / Lethal Concentration

GHS = Globally Harmonised System

ADR = Accord europeen relative au transport international de marchandises

IMDG-Code = International Maritime Code for Dangerous Goods

EmS = Emergency measures on Sea

ICAO = International Civil Aviation Organization

IATA/DGR= International Air Transport Association/Dangerous Goods Regulation

### **16.4 Further information:**

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Godavari Biorefineries Ltd. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application