

145/1, Jessore Road, Lake Town, Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: webcil@wbcil.com Website: www.wbcil.com

Section 1 - Chemical Product and Company Identification

1.1 MSDS Name: Sodium Butyrate (Food Grade)

1.2 Product Code: SOBFO98

1.3 Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Laboratory chemicals, Manufacture of substances

Uses advised against: Do not use for private purposes (household). Food, drink and animal

feeding stuffs.

1.4 Company Identification:

WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town, Kolkata – 700 089, India.

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Website: www.wbcil.com Email: webcil@wbcil.com

Section 2 - Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 GHS, Globally Harmonized System Classification of the substance

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Specific target organ toxicity, single exposure; Respiratory tract irritation Category 3

Germ cell mutagenicity Category 2

2.2 Signal word:

Warning

2.3 Hazard statement(s):

H302 (17.6%): Harmful if swallowed

H315 Causes skin irritation.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

H335 (88.2%): May cause respiratory irritation

H341 Suspected of causing genetic defects.

2.4 GHS Precautionary statements:



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Section 2 - Hazards Identification

Prevention

- **P202:** Do not handle until all safety precautions have been read and understood.
- **P261:** Avoid breathing dust/fume/gas/mist/vapors/spray.
- **P264:** Wash ... thoroughly after handling.
- **P264+P265:** Wash ... thoroughly after handling. Do not eat, drink or smoke when using this product.
- **P270:** Do not eat, drink or smoke when using this product.
- **P271:** Handle and open container with care.
- **P280:** Wear protective gloves/protective clothing/eye protection/face protection.
- **P281:** Use personal protective equipment as required.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P405: Store locked up.

Response

- **P301+P317:** IF SWALLOWED: May cause an allergic skin reaction.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- **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.
- **P318:** May cause eye irritation.
- **P319:** Causes serious eye irritation.
- **P321:** Specific treatment (see on this label).
- P330: Rinse mouth.
- P332+P313: If skin irritation occurs: Get medical advice/attention.



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Section 2 - Hazards Identification

- P337+P313: If eye irritation persists get medical advice/attention.
- P308+313: IF exposed or concerned: Get medical advice/attention.

Disposal

• **P501:** Dispose of contents/container in accordance with local/regional/national/international regulations.

2.5 Classification according to EU:

X_n Harmful R36/37/38, R68

2.6 Hazards not otherwise classified (HNOC) or not covered by GHS:

None

2.7 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

2.8 Pictogram:





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Section 2 - Hazards Identification

2.9 NFPA rating:



NFPA SCALE (0-4)

2.10 HMIS rating:

Health	2
Flammability	0
Physical Hazard	0
Personal protection	E

HMIS RATINGS (0-4)

Section 3 - Composition / Information on Ingredients

3.1 Chemical Name: Sodium Butyrate

3.2 CAS Number: 156-54-7

3.3 Molecular Formula: C₄H₇NaO₂ 3.4 Molecular Weight: 110.09 g/mol

3.5 EC Number: 205-857-6

3.6 Synonym: Butyric acid sodium salt, Sodium butanoate

Section 4 - First Aid Measures

4.1 Description of First Aid Measures:

4.1.1 General advice

Show this material safety data sheet to the doctor in attendance



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Section 4 - First Aid Measures

4.1.2 Inhalation

If Sodium Butyrate is inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

4.1.3 Ingestion

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

4.1.4 Skin Contact

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water

4.1.5 Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed:

No data available

Section 5 - Fire-Fighting Measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

5.1.2 Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Flammability of the product:

May be combustible at high temperature.

5.3 Auto ignition temperature:

Not available.



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Section 5 - Fire-Fighting Measures

5.4 Flash points:

Not available.

5.5 Hazardous combustion products:

Carbon oxides (CO, CO2), Sodium oxides, Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

5.6 Fire hazards in presence of various substances:

- 5.6.1 Flammability: Slightly flammable in present of heat.
- 5.6.2 Non-flammability: Slightly flammable to inflammable in presence of heat.

Nonflammable in presence of shocks.

5.7 Explosion hazards in presence of various substances:

Slightly explosive in presence of open flames and sparks. Nonexplosive in presence of shocks.

5.8 Advice for firefighters in case of fire and/or explosion:

do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

5.9 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 Advice for non-emergency personnel

Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

6.3.1 Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal



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Section 6 - Accidental Release Measures

container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

6.3.2 Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

6.5 Protective Action Criteria for Chemicals

PAC-1: 30 mg/m³ PAC-2: 330 mg/m³ PAC-3: 2,000 mg/m³

Section 7 - Handling and Storage

7.1 Precautions for safe handling:

Good ventilation required if process creates the formation of dust. Measures to prevent fire as well as aerosol and dust generation. Removal of dust deposits.

7.1.1 Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs

7.2 Storage:

7.2.1 Storage conditions

Store in tightly closed containers, away from extreme heat and humidity.

7.2.2 Conditions for safe storage, including any incompatibilities

Store in a dry place. Hygroscopic.

7.2.3 Incompatible substances or mixtures

Observe hints for combined storage. Incompatible materials: see section 10.

Consideration of other advice:



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Section 7 - Handling and Storage

7.2.4 Ventilation requirements

Use local and general ventilation.

7.2.5 Storage class

Storage class (TRGS 510): 11: Combustible Solids

7.2.6 Storage temperature

Maximum 25°C and 50% relative humidity.

Section 8 - Exposure Controls / Personal Protection

8.1 National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name	CAS	Identifier	TWA	STEL	Ceiling-	Notation	Source
	of	No.		[mg/ml]	[mg/ml]	С		
	agent					[mg/ml]		
GB	dust		WEL	10			i	EH40/2005
GB	dust		WEL	4			R	EH40/2005

Notation

Celling-C: Celling value is a limit value above which exposure should not occur

i: Inhalable fraction

r: Respirable fraction

STEL: Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15 minutes period (unless otherwise specified)

TWA: Time-weighed average (long-term exposure limit); measured or calculated in relation to a reference period of 8 hours' time-weighted average (unless otherwise specified)

8.2 Engineering controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.



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Section 8 - Exposure Controls / Personal Protection

8.3 Personal protection:

Safety glasses, Lab Coat, Dust respirator, be sure to use an approved / certified respirator or equivalent, Gloves

8.3.1 Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses



8.3.2 Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).



Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L



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Section 8 - Exposure Controls / Personal Protection

8.3.3 Respiratory protection





Required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

8.4 Personal protection in case of large spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

8.5 Exposure limits:

Consult local authorities for acceptable exposure limits.

Section 9 - Physical and Chemical Properties				
Appearance form		White free flowing powder/ partially		
		granules		
Odour	:	Characteristic, unpleasant		
Melting point/freezing point Melting	eezing point Melting : 250 - 253 °C - lit			
point/range				
Initial boiling point and boiling range	:	No data available		
Flammability (solid, gas)	:	No data available		
Upper/lower flammability or explosive	:	No data available		
limits				
Flash point	:	No data available		



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Section 9 - Physical and Chemical Properties				
Autoignition temperature	:	No data available		
Decomposition temperature	:	No data available		
VAPOR PRESSURE	:	0.0000015 [mmHg]		
VAPOR DENSITY (AIR = 1)	:	No data available		
SOLUBILITY	:	Soluble in water.		
Melting / Freezing Point	:	300°C		
pH (1% w/v Solution)	:	7.0 – 11.0		
Molecular Weight	:	258.07g/mole		
Partition coefficient n-octanol/water :		-3.2		
(log value)				
Density	:	1,324 g /cm³ at 30°C		

Section 10 - Stability and Reactivity

10.1 Reactivity:

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability:

The product is stable under normal conditions.

Possibility of hazardous reactions Violent reactions possible with: Strong oxidizing agents

10.3 Conditions to avoid:

Exposure to moisture may affect product quality.

10.4 Materials to avoid:

Strong oxidizing agents.

10.5 Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sodium oxides.



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Section 11 - Toxicological Information

11.1 Routes of Entry:

Inhalation, Ingestion

11.2 Information on toxicological effects:

Acute toxicity

LD50 Oral - Rat - male and female - 1.632 mg/kg (OECD Test Guideline 401) Remarks: The

value is given in analogy to the following substances: butyric acid

Acute toxicity estimates Oral - 1.632 mg/kg (Calculation method)

Intraperitoneal TDLO 657 mg/kg//3W (intermittent) (mouse)

11.2.1 Inhalation: No data available

11.2.2 Dermal: No data available

11.2.3 Skin corrosion/irritation Remarks: Causes skin irritation.

11.2.4 Serious eye damage/eye irritation Remarks:

Causes serious eye irritation.

11.2.5 Respiratory or skin sensitization No data available

11.3 Germ cell mutagenicity:

No data available

11.4 Carcinogenicity:

No data available

11.5 Reproductive toxicity:

No data available

11.6 Specific target organ toxicity - single exposure:

No data available

11.7 Specific target organ toxicity - repeated exposure:

No data available

11.8 Aspiration hazard:

No data available

11.9 Symptoms related to the physical, chemical and toxicological characteristics:

11.9.1 If swallowed

vomiting, nausea

11.9.2 If in eyes



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Section 11 - Toxicological Information

production of tissue damage in the eye, conjunctivitis (pink eye), Causes serious eye irritation, Irritating to eyes

11.9.3 If inhaled

cough, pain, choking, and breathing difficulties, pulmonary oedema, Dyspnoea, varying degrees of pulmonary injury, pneumonia

11.9.4 If on skin

causes skin irritation •

11.10 Additional Information Endocrine disrupting properties:

Product:

Assessment:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: ET6400000

Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema to the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice.

Liver - Irregularities - Based on Human Evidence

Section 12 - Ecological Information

12.1 Aquatic toxicity (acute):

Endpoint	Value	Species	Source	Exposure time
LC50	5.000 mg/l	Bluegill		24h
		(Lepomis		
		macrochius)		
EC50	1.950 mg/l	Daphania		24h
		magna		



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Section 12 - Ecological Information

Toxicity to fish

static test LC50 - Pimephales promelas (fathead minnow) - 77 mg/l - 96 h (OECD Test Guideline 203) Remarks: The value is given in analogy to the following substances: butyric acid

12.2 Ecotoxicity:

Ecotoxicity in water (LC50): 18000-32000 mg/l

12.3 Persistence and degradability:

Biodegradability

aerobic - Exposure time 14 d

Result: 100 % - Readily biodegradable.

Remarks: The value is given in analogy to the following substances: butyric acid

Theoretical Oxygen Demand (without nitrification): 1,453 mg/mg

Theoretical Oxygen Demand (with nitrification): 1,453 mg/mg

Theoretical Carbon Dioxide: 1,599 mg/mg

12.4 Products of biodegradation:

Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.

12.5 Toxicity of the products of biodegradation:

The Product itself and its products of degradation are not toxic.

12.6 Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent,

12.7 Bio-accumulative potential:

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) -3,2

12.8 Mobility in soil:

Data are not available.

12.9 Special remarks on the products of biodegradation:

Not Available

12.10 Endocrine disrupting properties:

Product:



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Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects Discharge into the environment must be avoided.

Section 13 - Disposal Considerations

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14 - Transport Information

14.1 UN number

ADR/RID: - IMDG: - IATA: - 14.2

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

Further information

Not classified as dangerous in the meaning of transport regulations

14.7 D O T Classification:

Not a DOT controlled material.



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Section 14 - Transport Information

14.8 I A T A Classification:

UN-No: Not Regulated. Non-dangerous Proper Shipping Name: No information available.

Hazard Class: No information available. Subsidiary Risk: No information available. Packing

Group: No information available. **Description**: No information available.

Identification: Not applicable.

Special Provision for Transport:

Not applicable

Section 15 - Regulatory Information

15.1 FEDERAL AND STATE REGULATION:

No products were found.

15.2 OTHER REGULATION:

Not available.

15.3 WHMIS (Canada):

Not controlled under WHMIS (Canada).

15.4 DSCL (EEC):

This product is not controlled under the EU Regulations.

PROTECTIVE EQUIPMENT:

Gloves. Lab coat. Dust respirator. Be sure to use an approved /certified respirator or equivalent. Splash goggles.

Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Not listed

List of substances subject to authorization (REACH, Annex XIV)/SVHC – Candidate list Not listed

Seveso Directive



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	Section 15 - Regulatory Information			
2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity (tonners) for the application of lower and upper-tier requirements	Notes	
	Not assigned			

Deco-Paint Directive

VOC content	0%

Industrial Emissions Directive (IED)

VOC content 0%

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

Not listed

Regulation concerning the establishment of a European Pollutant Release and transfer register (PRTR)

Not listed

Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of	Name acc. To	CAS No.	Listed in	Remarks
substance	inventory			
Sodium	Metals and their		a)	
butyrate	compounds			

Legend

a) Indicate list of main pollutants

Regulation on the marketing and use of explosives precursors

Not listed

Regulated on drug precursors

Not listed



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Regulation on substances that deplete the ozone layer (ODS)

Not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

Not listed

Regulation on persistent organic pollutant (POP)

Not listed

Other information

Directive 94/33/EC on the protection of the young people at work. Observe employment restrictions under the Maternity protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

Country	Inventory	Status
AU	AIIC	Substance is listed
CA	NOSL	Substance is listed
CN	LECSC	Substance is listed
EU	ECSI	Substance is listed
JP	ISHA	Substance is listed
KR	KECI	Substance is listed
NZ	NZIoC	Substance is listed
PH	PICCS	Substance is listed
TW	TCSI	Substance is listed
US	TSCA	Substance is listed (ACTIVE)
VN	NCI	Substance is listed

Legend

AIIC: Austrillian Inventory of Industrial Chemicals **ECSI**: EC Substance Inventory (EINCES, ELINCS, NLP)

IECSC: Inventory of Existing Chemical Substances Produced or Imported in China

ISHA-ENCS: Inventory of Existing and New Chemical Substances (ISHA-ENCS)

KECI: Korea Existing Chemicals inventory



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Section 15 - Regulatory Information

NCI: National Chemical Invetory

NDSL: Non-domestic Substances List

NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine inventory of Chemicals & Chemical Substance

TCSI: Taiwan Chemical Substance Inventory

TSCA: Toxic Substance control Act
15.2 Chemical Safety assessment

No Chemical Safety Assessment has been carried out for this substance

Section 16 - Other Information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC -International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG -International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL -Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No



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Section 16 - Other Information

Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Disclaimer: This material safety data sheet is provided as an information resource only. WEST BENGAL CHEMICAL INDUSTRIES LIMITED believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.

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