TATA CHEMICALS LIMITED

SAFETY DATA SHEET (SDS)

Name of chemical: Sodium Bicarbonate

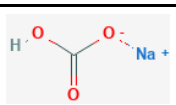
1. PRODUCT IDENTIFICATION / COMPANY ADDRESS

Trade Name	Sodium Bicarbonate	**Common Name**	Baking Soda	**Synonyms**	Bicarb, baking soda, bicarbonate, sodium acid carbonate
Company Name / Address / Phone / Fax	**Tata Chemicals Limited,** Mithapur District: Devbhoomi Dwarka (Gujarat) 361 345 INDIA ***Contact in case of Emergency Only:*** +91(02892 675802 /03) Contact Person :+91 9227676113 Mr. Devendra Thakur				
Chemical Name	Sodium Bicarbonate (Crystalline Solid)				

2. HAZARD IDENTIFICATION

Hazard Classification	Eye Irrit. 2B, H320
LABEL ELEMENTS	No Labelling
Signal word	Danger
Hazard statement	H320 - Causes eye irritation
Precautionary statement	P264 - Wash exposed skin thoroughly after handling. P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention

3. COMPOSITION / INFORMATION AND INGREDIENTS

Structural Formula		**Chemical Family**	
		Molecular weight	84.05 g/mol
CAS No	144-55-8	**Molecular Formula**	$NaHCO_3$
Name	**Product identifier**	**%**	**Classification**
Sodium Bicarbonate	144-55-8	100%	Eye Irrit. 2B, H320

4. FIRST AID MEASURE

Ingestion	• Do NOT induce vomiting unless directed to do so by medical personnel. • Never give anything by mouth to an unconscious person. • Loosen tight clothing such as a collar, tie, belt or waist band. • Get medical attention if symptoms appear
Inhalation	• If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Eyes	• Flush eyes with running water for 15 minutes, maintaining the eyelids wide open to eliminate the product. • Consult an ophthalmologist in case of persistent pain.
Skin	• Wash with soap and water. Cold water may be used. • Get medical attention if irritation develops.
Antidote	
Most important symptoms/ effects, acute and or delayed	Eye Contact- Moderate irritation to eyes. Inhalation- Slight irritating to nose. Skin contact- Negligible effect. Ingestion- Ingestion of large quantities may cause nausea and vomiting.
Indication of immediate medical attention and special treatment needed	No additional information available

5. FIRE FIGHTING MEASURES

Fire extinguishing media	• In case of fire in close proximity, all means of extinguishing are acceptable.
Hazardous decomposition products	No additional information available
Special fire fighting procedure	• Use Protective Equipment as applicable to the combustion products associated with the fire.
Precaution to Fire Fighters	Non-flammable.

6. ACCIDENTAL RELEASE MEASURES

Personal precaution	• Refer to Section 8 "Exposure Controls / Personal Protection".
Precautions for the environment	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
Clean up method	• Can be recovered and re-used if contamination does not present a problem. • Vacuum or sweep up the material. If the spilled product is unusable due to contamination, consult state or federal environmental agencies for acceptable disposal procedures and locations

7. HANDLING AND STORAGE

General precaution	• Use air conveying/mechanical systems for bulk transfer to storage. • For manual handling of bulk transfer use mechanical ventilation to remove airborne dust from railcar, ship or truck. • Use approved respiratory protection when ventilation systems are not available. • Selection of respirators is based on the dust cloud generated.
Personal protection	Wear personal protective equipment as Section-8
Storage	• Protect from excessive heat and moisture. Store away from acids
Incompatibilities	Strong oxidizers. Strong acids.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protection

Skin	• Dry product is generally non-irritating to intact skin. However, this product can be irritating where skin has been damaged and can create skin irritation after long exposures when moisture is present. Under such conditions, gloves and long-sleeved clothing are recommended to minimize skin contact.	**Eyes**	• Appropriate eye and face protection equipment (ANSI Z87 approved) should be selected for the particular use intended for this material. Safety glasses with side shields are recommended.
Respiration	• Whenever dust in the worker's breathing zone cannot be controlled with ventilation or other engineering means, workers should wear respirators or dust masks approved by NIOSH / OSHA or comparable certification organization to protect them against airborne dust.	**Other**	

Exposure limits

TLV-TWA	15 mg/m3 (Total Dust) 5 mg/m3 (Respirable Dust)	**TLV-STEL**	
Appropriate Engineering Control	Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Crystalline Solid	**Molecular Weight**	84.05 g/mol	**Specific gravity**	No data available
Odour/Odor threshold	Odorless	**Flash Point °C**	Not Pertinent	**pH/ Acidity**	8.6 (5% solution).
Auto Ignition Temp. °C	No data available	**Boiling Point °C @ 760 mm Hg**	Not available	**Melting Point °C**	270 °C
Vapor Press. Mm Hg @ 20 °C	Not Applicable	**Vapour Density**	No data available	**Water Solubility @ 20 °C**	88g / liter water. @ 20ºC (68ºF).
LEL %	Not Applicable	**UEL %**	Not Applicable	**% Volatile**	
Evaporation rate		**Viscosity @ 25 °C**		**PH**	
Octanol / Water Partition Coefficient	No data Available			No data available	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.	**Possibility of Hazardous reaction**	Contact with acids except under controlled conditions.
Hazardous Reactions/ Decomposition products	• May liberate Carbon Monoxide Carbon Dioxide or Oxides Fumes.	**Incompatible Materials**	Strong acids. Strong oxidizers.
Condition to avoid	• Incompatible materials, Moisture. Stable in dry air, but slowly decomposes in moist air.		

11. TOXICOLOGICAL INFORMATION

Routes of exposure	Ingestion, Eyes, Inhalation, Skin Absorption				
LD50 (oral / rats) mg/kg	4000 mg/kg	**LD50 (dermal/ rats)** mg/kg		**LC50 (inhalation / rats) - 4 hrs.** mg/l	-----
Target Organ Effects	Mainly Respiratory system				
Symptoms related to physical, chemical & toxicological characteristics			Based on available data, the classification criteria are not met. Causes eye irritation.		

12. ECOLOGICAL INFORMATION

Mobility in Soil	No additional information available
Persistence and degradability	Not established.
Bioaccumulative Potential	Not established.
Effects on fish (Ecotoxicity)	Non-toxic, the substance dissociates readily into its constituent ions, all of which are abundant in nature
Effects on birds	No data available
Effects on bees	No data available

13. DISPOSAL CONSIDERATIONS

• Waste must be disposed of in accordance with federal, state and local environmental control regulations

14. TRANSPORT INFORMATION

UN No.	---	**IMDG No.**	---
Shipping Name	Sodium Bicarbonate	**Hazard class**	---
Packing group		**Hazard Sub class**	---
Marine Pollutant	Yes	**Labels required**	---
Warning Statement	**---**		
Packaging / Precaution			
Shipping Marking			

15. REGULATORY INFORMATION

LABELING:

PHRASES R:

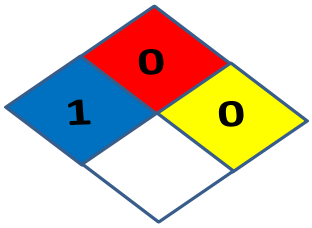
Not classified as hazardous or toxic to users.

PHRASES S:

Not classified as hazardous or toxic to users.

16. OTHER INFORMATION

NFPA Rating :



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