

Approved by:

*Zwally Anthony*

June 21, 2010

**SECTION 1. PRODUCT IDENTIFICATION**

Name: Sodium Bicarbonate, 100%  
Synonym: Baking Soda; Sodium Hydrogen Carbonate; Sodium Acid Carbonate; Bicarbonate of Soda  
Manufacturer: Nacalai Tesque (Japan)  
Catalog Number: 630-00963-01 (Shimadzu), 44936-32 (Nacalai Tesque)  
Additional Information Contact: 800.477.1227  
24 Hour Emergency Contact: 410-768-8155 (AIRPACK; 500 McCormick Dr.; Glen Burnie, MD 21061)

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS Number: 144-55-8  
Molecular Weight: 84.01  
Chemical Formula:  $\text{NaHCO}_3$   
Hazardous: No

**SECTION 3. PRODUCT USE**

This product is specifically for use in the IC channel of the TOC-500, TOC-5000 Series, TOC-V Series and TOC-4000 Series of Shimadzu Total Organic Carbon analyzers. Refer to the appropriate instruction manual for directions on proper use. Keep tightly sealed in a cool, dry, place. Wear appropriate protective clothing and eye protection: GOGGLES; LAB COAT; GLOVES.

**SECTION 4. PHYSICAL DATA**

Appearance:	White powder	Odor:	Odorless
Melting Point:	60°C (140°F)	Boiling Point:	N/A
Density:	2.2	Vapor Pressure:	N/A
pH:	8.3 [0.1M @ 25C (77F)]	Specific Gravity:	2.53
Solubility:	7.8g/100ml water @ 18C (64F)		

**SECTION 5. HAZARDS IDENTIFICATION**

**Good industrial hygiene and safety procedures dictate that unnecessary exposure to any chemical substance should be avoided and prompt removal from skin, eyes and clothing is necessary.**

Health Risk: Slight  
Flammability: Slight  
Reactivity: Slight  
Contact Risk: Slight  
Storage Risk: General Storage

**SECTION 6. TOXICITY DATA**

Oral rat LD50: 4220 mg/kg  
Environmental Fate: None Found  
Environmental Toxicity—Sodium Bicarbonate:  
48 hour EC50 Daphnia magna (water flea): 2350 mg/L.  
96 hour LC50 Lepomis macrochirus (bluegill): > 5000 mg/L.  
120 hour EC50 Nitzschia linearis (diatom): 650 mg/L.

This material is not expected to be toxic to aquatic life

**SECTION 7. HEALTH HAZARD DATA**

Inhalation: Inhalation of dust may cause irritation to the respiratory tract.  
Ingestion: Extremely large doses may cause gastro-intestinal disturbance.  
Skin Contact: No adverse effects  
Eye Contact: May cause mild irritation, redness, or discomfort.

**Approved by:**
*Jessie Anthony*
**June 21, 2010**

### **SECTION 8. FIRST-AID MEASURES**

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.  
 Ingestion: Give water to drink to dilute. If large amounts were swallowed, get medical advice.  
 Skin Contact: Not expected to require first aid measures.  
 Eye Contact: Wash thoroughly with running water. Get medical advice if irritation develops.

### **SECTION 9. FIRE FIGHTING MEASURES**

Noncombustible: Use extinguishing media appropriate to surrounding fire conditions.  
 Special Information: Use self-contained breathing apparatus and protective clothing appropriate to surrounding fire conditions.  
 Fire/explosion hazard: None.

### **SECTION 10. ACCIDENTAL RELEASE MEASURES**

Ventilate area of leak or spill. Vacuum or wet sweep spills to minimize dust, then containerize for reclamation or disposal. Small amounts of residue may be flushed to sewer with plenty of water.

### **SECTION 11. STABILITY AND REACTIVITY**

Stability: Stable under ordinary conditions of use and storage  
 Incompatibilities: Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate or sodium-potassium alloy.  
 Conditions to Avoid: Heat, moisture, incompatibles.  
 Hazardous Decomposition Products: Gaseous carbon dioxide.  
 Hazardous Polymerization: Will not occur

### **SECTION 12. DISPOSAL**

Dispose of container and unused contents in accordance with Federal, State, and Local requirements. State and Local disposal regulations may differ from Federal regulations and can be more stringent, but will never be less strict.

### **SECTION 13. OTHER INFORMATION**

Chemical Inventory Status - Part 1				
Ingredient	TSCA	EC	Japan	Australia
Sodium Bicarbonate (144-55-8)	Yes	Yes	Yes	Yes

Chemical Inventory Status - Part 2				
Canada				
Ingredient	Korea	DSL	NDSL	Phil.
Sodium Bicarbonate (144-55-8)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1				
Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List	Chem. Cat.
Sodium Bicarbonate (144-55-8)	No	No	No	No

Federal, State & International Regulations - Part 2			
Ingredient	CERCLA	RCRA	TSCA
		261.33	8(d)
Sodium Bicarbonate (144-55-8)	No	No	No

**MATERIAL SAFETY DATA SHEETS: SODIUM BICARBONATE****REV: 3****Page: 3 of 3****Approved by:***Zwally Anthony***June 21, 2010**

Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No

SARA 311/312:

Acute: No      Chronic: No      Fire: No      Pressure: No

Australian Hazchem Code: No information found.

Poison Schedule: No information found

Transportation Information: Not Regulated

The information provided above is believed to be correct, but does not purport to be all inclusive and it must serve only as a guide. Shimadzu shall not be held liable for any damage resulting from handling or contact with the above product. Users should make their own determinations regarding the suitability of this information for their particular purposes