

MATERIAL SAFETY DATA SHEET

MAY 11 2000

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium bicarbonate feed grade
HCI PRODUCT ID NUMBER: 02648
SYNONYMS: Baking soda
CHEMICAL FAMILY NAME: Inorganic, salt

NFPA HAZARD RATINGS (H-F-R): 0-0-0
HMIS HAZARD RATINGS (H-F-R): 0-0-0

DISTRIBUTOR: HCI U.S.A. DISTRIBUTION COMPANIES, INC.
TECHNICAL RESOURCE CENTER
6529 S. BROADWAY
ST. LOUIS, MO 63111
(314) 353-6500

IN CASE OF EMERGENCY CALL: CHEMTREC 1-800-424-9300

2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT	CAS No.	PERCENT
Sodium bicarbonate	000144-55-8	100

Trace impurities and additional material names not listed above may also appear in the Regulatory Information Section (Section 15) towards the end of the MSDS. These materials may be listed for local "Right to Know" compliance and for other reasons.

3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****

No significant target effects reported.

POTENTIAL HEALTH EFFECTS

- SKIN: Contact with the skin is not expected to cause irritation.
- EYES: Contact with the eyes is not expected to cause irritation.
- INGESTION: Small amounts (tablespoonfuls) swallowed during normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.
- INHALATION: Inhalation is not expected to have any effect.

Components found on one of the OSHA designated carcinogen lists are listed below.

INGREDIENT	NTP	IARC	OSHA
Sodium bicarbonate	N	N	N

This product does not contain any chemicals reportable under California Proposition 65.

4. FIRST AID MEASURES

- SKIN CONTACT: Not expected to require first aid measures.
- EYE CONTACT: Flush eyes with water for at least 15 minutes.
Call a physician if irritation persists.
- INGESTION: Give 2-3 (16 oz.) glasses of water.
Do not induce vomiting!
Do not give anything by mouth to an unconscious person.
Call a physician if irritation persists.
- INHALATION: Not expected to require first aid measures.

NOTES TO PHYSICIAN:

Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

Continued

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES

FLASHPOINT: N/AP
FLASH POINT METHOD: N/AP
LOWER FLAMMABILITY LIMIT(% IN AIR): N/AP
UPPER FLAMMABILITY LIMIT(% IN AIR): N/AP
AUTOIGNITION TEMPERATURE: N/AP
FLAMMABILITY CLASSIFICATION: N/AP

EXTING. MEDIA: This product is not flammable. Use extinguishing media for surrounding fire.

FIRE FIGHTING: Use NIOSH-approved self-contained breathing apparatus and complete protective clothing when fighting chemical fires.

FIRE HAZARDS: None known

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS: Sweep or shovel spilled material into containers.
After removal, flush contaminated area thoroughly with a water spray.

LARGE SPILLS: Contain spill and ventilate area. Permit only trained personnel wearing full protective equipment to enter the spill area. Collect the spill in a waste container or remove with a vacuum truck. Prevent spill from entering natural watercourses.

For large spills, contain and collect for reuse.

7. HANDLING AND STORAGE INFORMATION

HANDLING: Avoid contact with the eyes.
Avoid breathing product dust.
Do not take internally.
Wash thoroughly after handling this material.

STORAGE: Keep container closed when not in use.
Store in a cool, dry place.

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EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

No special engineering controls are necessary.

PERSONAL PROTECTIVE EQUIPMENT

SKIN: Not normally required

EYES: Wear chemical safety goggles.

RESPIRATORY: Use a NIOSH-approved respirator for dusts/mists when necessary.

OTHER: Emergency showers, eye-wash stations, and fire blankets should be accessible. Wear protective clothing.

EXPOSURE GUIDELINES

INGREDIENT	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Sodium bicarbonate	N/EST	N/EST	N/EST	N/EST

See 29 CFR 1910.1000 (D)(2) and ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" booklet (Appendix C) for the determination of exposure limits for mixtures. Consult an industrial hygienist or similar professional to confirm that the calculated exposure limits are appropriate.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Powder
APPEARANCE:	White, crystalline
ODOR:	Odorless
MOLECULAR WEIGHT:	84.02
SPECIFIC GRAVITY:	2.2
SOLUBILITY (IN WATER):	8.6g/100ml @68F
BOILING POINT:	N/AP
FREEZING POINT:	N/AP
MELTING POINT:	N/AP
PRODUCT pH (@ 23 C):	8.2(1%soln-w/v)
VAPOR PRESSURE:	N/AP
VAPOR DENSITY:	N/AP
EVAPORATION RATE (BUTYL ACETATE=1):	N/AP
% VOLATILES:	N/AP

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10. STABILITY AND REACTIVITY INFORMATION

STABILITY: Stable

COND. TO AVOID: Exposure to high temperatures should be minimized.

INCOMPATIBILITY: Acids

DECOMPOSITION: Oxides of sodium
Toxic oxides of carbon

POLYMERIZATION: Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE EFFECTS

Moderately toxic: ingestion.

Eye effects: The material was slightly irritating to the rabbit eye, 100 mg/24 hour.

Skin effects: Not a skin irritant or dermally toxic.

Oral Effects: Single dose and toxicity is nontoxic. Oral-inf TDLo 1260 mg/kg. Oral-rat LD 4-8 g/kg.

DELAYED EFFECTS (CHRONIC AND SUBCHRONIC)

CARCINOGENICITY: No data available

MUTAGENICITY: Unscheduled DNA synthesis - rat oral 50400 mg/kg 4 week(s) - continuous

EPIDEMIOLOGY: No data available

TERATOGENICITY: No data available

REPRODUCTIVITY: 40 mg/kg intraperitoneal - mouse TDLo 7 day(s) pregnant female continuous.

NEUROTOXICITY: No data available

OTHER: Interaction with drugs may occur.

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12. ECOLOGICAL INFORMATION

Fish toxicity: 1850 ug/L 96hr(s) LC50 (mortality) Fathead minnow
(Pimephales promelas)
Invertebrate toxicity: 4500 ug/L 28hr(s) LOEC (reproduction) Water
flea (Daphnia magna)
Algal toxicity: 45000 ug/L 63 month(s) (abundance) Algae,
phytoplankton, algal mat (Algae)

13. DISPOSAL CONSIDERATIONS

RCRA WASTE: Yes
RCRA ID NUMBER: N/AP
VOC CONTENT (lbs/gal): N/AP

Discharge, treatment, or disposal may be subject to Federal, State,
or Local laws. State and Local regulations and restrictions are
complex and may differ from Federal disposal regulation.

The information offered here is for the product as shipped. Use
and/or alterations to the product such as mixing with other
materials may significantly change the characteristics of the
material and alter the RCRA Classification and the proper disposal
method.

14. TRANSPORTATION INFORMATION

DOT SHIPPING NAME: None
DOT HAZARD CLASS: None
DOT ID NUMBER: None
DOT PACKING GROUP: None
IMDG HAZARD CLASS: None
ICAO HAZARD CLASS: None

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15. REGULATORY INFORMATION

CERCLA "REPORTABLE QUANTITY" (RQ): No RQ

Spills/releases resulting in the loss of this product at or above its RQ requires immediate notification to the National Response Center (1-800-424-8802) and to your Local Emergency Planning Committee.

TSCA

TSCA INVENTORY STATUS: Yes

SARA TITLE III

INGREDIENT	SECTION 313	SECTION 302
Sodium bicarbonate	no	no

SECTION 311/312 HAZARD CLASS: N/AP

WHMIS CLASSIFICATION (CANADA)

Not restricted

FOREIGN INVENTORY STATUS

No data available

ADDITIONAL REGULATORY INFORMATION

This product does not contain any chemicals reportable under California Proposition 65.

MASSACHUSETTS SUBSTANCE LIST:
Not listed

NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST:
Not listed

PENNSYLVANIA HAZARDOUS SUBSTANCE LIST:
Not listed

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16 OTHER INFORMATION

CREATION DATE: 06/11/1997

REVISION DATE: 06/11/1997

The information herein is presented in good faith and is believed to be correct as of the date hereof. However, HCI makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use.

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