

THE WORLD'S FOREMOST MANUFACTURER OF RESEARCH  
BIOCHEMICALS AND DIAGNOSTIC REAGENTS

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**DATE 06/04/96  
CUST#: 2-097-94804  
PO#: UNE-64248**

**M A T E R I A L   S A F E T Y   D A T A   S H E E T                      P A G E   1**

**THIS MSDS IS FOR A COMPONENT OF CATALOG #: 661-8**

**SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -**

**CATALOG #: S9000  
NAME: SODIUM BISULFITE**

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

**CAS #: 7631-90-5  
EC NO: 231-548-0**

**SYNONYMS**

**BISULFITE DE SODIUM (FRENCH) \* HYDROGEN SULFITE SODIUM \* MONOSODIUM  
SULFITE \* SODIUM ACID SULFITE \* SODIUM BISULFITE (ACGIH) \* SODIUM  
BISULPHITE \* SODIUM HYDROGEN SULFITE \* SODIUM SULFITE \* SODIUM  
SULFHYDRATE \* SULFUROUS ACID, MONOSODIUM SALT \***

**SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -**

**LABEL PRECAUTIONARY STATEMENTS**

**TOXIC (USA DEFINITION)  
HARMFUL (EUROPEAN DEFINITION)  
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.  
CAUSES SEVERE IRRITATION.  
POSSIBLE SENSITIZER.  
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF  
WATER AND SEEK MEDICAL ADVICE.  
WEAR SUITABLE PROTECTIVE CLOTHING.**

**SECTION 4. - - - - - FIRST-AID MEASURES- - - - -**

**IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF  
WATER FOR AT LEAST 15 MINUTES.  
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS  
AMOUNTS OF WATER.  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.  
CALL A PHYSICIAN.  
WASH CONTAMINATED CLOTHING BEFORE REUSE.**

**SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -**

**EXTINGUISHING MEDIA  
DRY CHEMICAL POWDER.**

**SPECIAL FIREFIGHTING PROCEDURES  
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO  
PREVENT CONTACT WITH SKIN AND EYES.**

**CONTINUED ON NEXT PAGE**

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MATERIAL SAFETY DATA SHEET PAGE 2

THIS MSDS IS FOR A COMPONENT OF CATALOG #: 661-8

CATALOG #: S9000  
NAME: SODIUM BISULFITE

UNUSUAL FIRE AND EXPLOSIONS HAZARDS  
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. ACCIDENTAL RELEASE MEASURES

EVACUATE AREA.  
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.  
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.  
AVOID RAISING DUST.  
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. HANDLING AND STORAGE

REFER TO SECTION 8.

ADDITIONAL INFORMATION  
MIXING WITH SODIUM NITRITE RESULTS IN A VIGOROUS EXOTHERMIC REACTION.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.  
SAFETY SHOWER AND EYE BATH.  
USE ONLY IN A CHEMICAL FUME HOOD.  
DO NOT BREATHE DUST.  
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.  
AVOID PROLONGED OR REPEATED EXPOSURE.  
WASH THOROUGHLY AFTER HANDLING.  
TOXIC.  
SEVERE IRRITANT.  
POSSIBLE SENSITIZER.  
KEEP TIGHTLY CLOSED.  
AIR AND MOISTURE SENSITIVE  
STORE IN A COOL DRY PLACE.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR  
WHITE CRYSTALS PR POWDER

PHYSICAL PROPERTIES  
SPECIFIC GRAVITY: 1.480

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES  
STRONG ACIDS  
STRONG OXIDIZING AGENTS  
AIR SENSITIVE  
MOISTURE SENSITIVE

CONTINUED ON NEXT PAGE

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M A T E R I A L S A F E T Y D A T A S H E E T PAGE 3

THIS MSDS IS FOR A COMPONENT OF CATALOG #: 661-8

CATALOG #: S9000  
 NAME: SODIUM BISULFITE

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS  
 SULFUR OXIDES

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.  
 CAUSES SEVERE IRRITATION.  
 HIGH CONCENTRATIONS ARE EXTREMELY DESTRUCTIVE TO TISSUES OF THE MUCOUS  
 MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN.  
 SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,  
 WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND  
 VOMITING.  
 PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS IN CERTAIN  
 SENSITIVE INDIVIDUALS.  
 EXPOSURE CAN CAUSE:  
 COUGHING, CHEST PAINS, DIFFICULTY IN BREATHING.  
 STOMACH PAINS, VOMITING, DIARRHEA.

ADDITIONAL INFORMATION

WARNING: CERTAIN INDIVIDUALS WITH PREEXISTING RESPIRATORY CONDITIONS  
 SUCH AS ASTHMA MAY EXPERIENCE HYPERSENSITIVITY TO SULFITES AND SULFUR  
 DIOXIDE. THE SYMPTOMS INCLUDE BRONCHOCONSTRICTION, BRONCHOSPASM,  
 GASTROINTESTINAL DISTURBANCES, FLUSHING, HYPOTENSION, TINGLING  
 SENSATION, URTICARIA/ANGIOEDEMA AND SHOCK.

RTECS #: VZ2000000  
 SODIUM BISULFITE (1:1)

TOXICITY DATA

ORL-RAT LD50: 2 GM/KG	85INAB 6,1408,91
IPR-RAT LD50: 475 MG/KG	PNASA6 70,3655,73
IVN-RAT LD50: 115 MG/KG	JPETAB 101,101,51
IPR-MUS LD50: 675 MG/KG	CLPTAT 9,328,68
IVN-MUS LD50: 130 MG/KG	JPETAB 101,101,51
IPR-DOG LD50: 244 MG/KG	CLPTAT 9,328,68
IPR-RBT LD50: 300 MG/KG	CLPTAT 9,328,68
IVN-RBT LD50: 65 MG/KG	JPETAB 101,101,51
IPR-GPG LD50: 779 MG/KG	TXAPA9 44,251,78
IPR-HAM LD50: 487 MG/KG	CEHYAN 22,64,77
IVN-HAM LD50: 95 MG/KG	JPETAB 101,101,51

TARGET ORGAN DATA

BEHAVIORAL (ALTERED SLEEP TIME)  
 BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)  
 LUNGS, THORAX OR RESPIRATION (CYANOSIS)  
 LUNGS, THORAX OR RESPIRATION (RESPIRATORY DEPRESSION)  
 LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)

ADDITIONAL INFORMATION

ORAL-RAT LD50: 500 MG/KG

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CATALOG #: S9000  
NAME: SODIUM BISULFITE

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -  
DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -  
FOR SMALL QUANTITIES: CAUTIOUSLY ADD TO A LARGE STIRRED EXCESS OF WATER. ADJUST THE PH TO NEUTRAL, SEPARATE ANY INSOLUBLE SOLIDS OR LIQUIDS AND PACKAGE THEM FOR HAZARDOUS-WASTE DISPOSAL. FLUSH THE AQUEOUS SOLUTION DOWN THE DRAIN WITH PLENTY OF WATER. THE HYDROLYSIS AND NEUTRALIZATION REACTIONS MAY GENERATE HEAT AND FUMES WHICH CAN BE CONTROLLED BY THE RATE OF ADDITION. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -  
CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

EUROPEAN INFORMATION

HARMFUL  
R 20/21/22  
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.  
S 26  
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.  
S 36  
WEAR SUITABLE PROTECTIVE CLOTHING.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK  
ACGIH TLV-TWA 5 MG/M3  
IARC CANCER REVIEW:HUMAN INADEQUATE EVIDENCE 85INAB 6,1408,91  
IARC CANCER REVIEW:ANIMAL INADEQUATE EVIDENCE IMEMDT 54,131,92  
IARC CANCER REVIEW:GROUP 3 IMEMDT 54,131,92  
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION IMEMDT 54,131,92  
FEREAC 54,7740,89  
OEL-AUSTRALIA:TWA 5 MG/M3 JAN93  
OEL-BELGIUM:TWA 5 MG/M3 JAN93  
OEL-DENMARK:TWA 5 MG/M3 JAN93  
OEL-FRANCE:TWA 5 MG/M3 JAN93  
OEL-THE NETHERLANDS:TWA 5 MG/M3 JAN93  
OEL-SWITZERLAND:TWA 5 MG/M3 JAN93  
OEL-UNITED KINGDOM:TWA 5 MG/M3 JAN93  
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV  
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

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Table with 6 columns listing branch offices for SIGMA-ALDRICH in various countries including Germany, Spain, Italy, Belgium, Switzerland, Mexico, India, and South Korea.



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MATERIAL SAFETY DATA SHEET PAGE 5

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CATALOG #: S9000
NAME: SODIUM BISULFITE

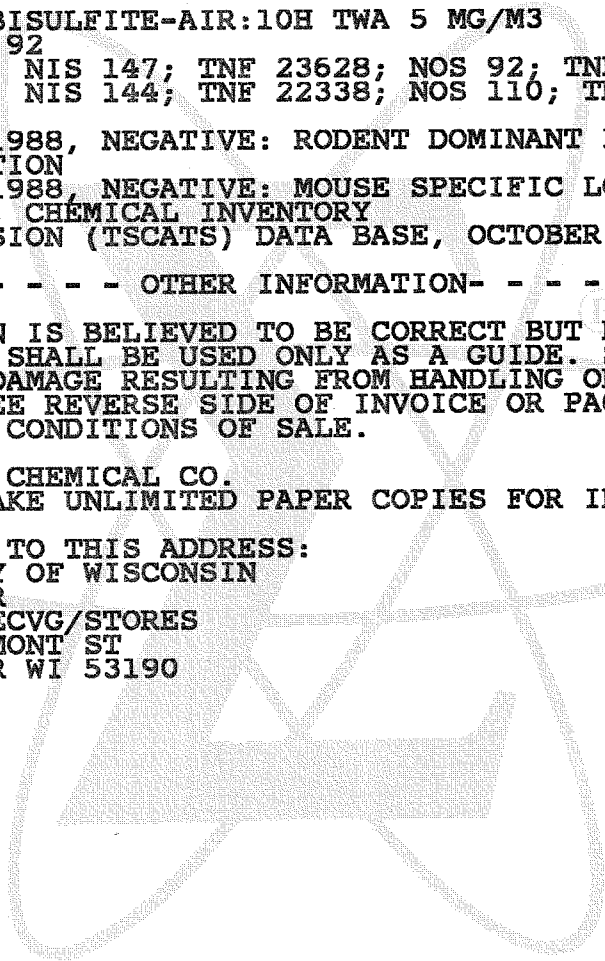
NIOSH REL TO SODIUM BISULFITE-AIR:10H TWA 5 MG/M3
NIOSH\* DHHS #92-100,92
NOHS 1974: HZD M1055; NIS 147; TNF 23628; NOS 92; TNE 133191
NOES 1983: HZD M1055; NIS 144; TNF 22338; NOS 110; TNE 296327; TFE
119535
EPA GENETOX PROGRAM 1988, NEGATIVE: RODENT DOMINANT LETHAL; RODENT
HERITABLE TRANSLLOCATION
EPA GENETOX PROGRAM 1988, NEGATIVE: MOUSE SPECIFIC LOCUS; TRP REVERSION
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, OCTOBER 1995

SECTION 16. - - - - - OTHER INFORMATION - - - - -

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