MATERIAL SAFETY DATA SHEET

SECTION 1. — — — — — — — CHEMICAL IDENTIFICATION— — — — — — — — — — — — — — — — — — — —

PRODUCT #: B133-4  NAME: BENZALDEHYDE, 99+%

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

CAS #: 100-52-7  MF: C7H6O

SYNONYMS
ALMOND ARTIFICIAL ESSENTIAL OIL * ARTIFICIAL ALMOND OIL * ARTIFICIAL ESSENTIAL OIL OF ALMOND * BENZALDEHYDE FCC * BENZENE CARBALDEHYDE * BENZENCARBONAL * BENZOIC ALDEHYDE * NCI-C56133 * PHENYL METHANAL *

SECTION 3. — — — — — — — HAZARDS IDENTIFICATION — — — — — — — — — — — — — — — — — — —

LABEL PRECAUTIONARY STATEMENTS
HIGHLY TOXIC (USA DEFINITION)
TOXIC (EUROPEAN DEFINITION)
MAY CAUSE CANCER.
MAY CAUSE HEREDITARY GENETIC DAMAGE.
TOKIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
CAUSES IRITATION.

COMBUSTIBLE.

TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
IN CASE OF CONTACT WITH EYES: RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
DO NOT BREATHE VAPOR.
AIR AND LIGHT SENSITIVE.
STORE UNDER NITROGEN.

SECTION 4. — — — — — — — FIRST-AID MEASURES — — — — — — — — — — — — — — — — — — —

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH copious amounts of WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS.

CONTINUED ON NEXT PAGE
MATERIAL SAFETY DATA SHEET

PRODUCT #: 3001334  NAME: BENZALDEHYDE, 99+%  MF: C7H6O

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.
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
WATER SPRAY.
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. COMBUSTIBLE.

SECTION 6. ACCIDENTAL RELEASE MEASURES
EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. HANDLING AND STORAGE
REFER TO SECTION 8.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
CHEMICAL SAFETY GOGGLES.
RUBBER GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR.
SAFETY SHOWER AND EYE BATH.
MECHANICAL EXHAUST REQUIRED. DO NOT BREATHE VAPOR.

CONTINUED ON NEXT PAGE
MATERIAL SAFETY DATA SHEET

PRODUCT #: 0001334  NAME: BENZALDEHYDE, 99+%  NF: C7H6O

DO NOT GET IN EYES, ON SKIN, OR CLOTHING.  AVOID PROLONGED OR REPEATED EXPOSURE.  WASH THOROUGHLY AFTER HANDLING.  CARCINOGEN.  MUTAGEN.  HIGHLY TOXIC.  SENSITIZER.  IRRITANT.  KEEP TIGHTLY CLOSED.  KEEP AWAY FROM HEAT AND OPEN FLAME.  AIR AND LIGHT SENSITIVE.  STORE UNDER NITROGEN.

SECTION 9.  PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR  COLORLESS LIQUID
BOILING POINT: 178 C TO 179 C  MELTING POINT: -26 C  FLASHPOINT: 145 F  62C
AUTOIGNITION TEMPERATURE: 374 F  189 C  LOWER EXPLOSION LEVEL: 1.4%  20 C  VAPOR PRESSURE: 4MM 45 C  VAPOR DENSITY: 3.7  SPECIFIC GRAVITY: 1.044

STABILITY

STABLE.

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS  AIR SENSITIVE  LIGHT SENSITIVE  STRONG REDUCING AGENTS  STRONG BASES

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CONTINUED ON NEXT PAGE
CARBON MONOXIDE, CARBON DIOXIDE

SECTION 11. TOxicoLOGICAL INFORMATION

ACUTE EFFECTS
MAY BE PAINFUL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.
VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
CAUSES SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
EXPOSURE CAN CAUSE:
NAUSEA, DIZZINESS AND HEADACHE
NARCOTIC EFFECT
CNS DEPRESSION
DAMAGE TO THE KIDNEYS
DAMAGE TO THE LIVER
PROLONGED OR REPEATED EXPOSURE TO SKIN CAUSES DEPATING AND
DERMATITIS.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

CHRONIC EFFECTS
CARCINOGEN.
MAY ALTER GENETIC MATERIAL.
TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM
RTECS NO:
CU43755000
BENZALDEHYDE
IRRITATION DATA
SKN-RBT 500 MG/24H MOD

TOXICITY DATA
ORL-RAT LD50: 1300 MG/KG
ORL-MUS LD50: 28 MG/KG
IPR-MUS LD50: 30 MG/KG
SUC-RBT LD50: 5 MG/KG
ORL-GIP LD50: 11 MG/KG
ORL-MAM LD50: 2020 MG/KG

TARGET ORGAN DATA
BEHAVIORAL (SOMNOLENCE)
BEHAVIORAL (TRENCH)
BEHAVIORAL (COHAB)

CONTINUED ON NEXT PAGE
PRODUCT #: 3001334  NAME: BENZALDEHYDE, 99+%  
MF: C7H6O

LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)  
GASTROINTESTINAL (ULCERATION OR BLEEDING FROM SMALL INTESTINE)  
KIDNEY, URETER, BLADDER (URINE VOLUME INCREASED)  
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTCS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTCS FOR COMPLETE INFORMATION.

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

SECTION 13. ------------ DISPOSAL CONSIDERATIONS ------------
THIS COMBUSTIBLE MATERIAL MAY BE BURNED IN A CHEMICAL INCINERATOR  
EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.  
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

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

SECTION 15. ------------ REGULATORY INFORMATION ------------
REVIEWS, STANDARDS, AND REGULATIONS  
EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION  
FERAC 54-774-0-0  
DEL-HUNGARY: THA 5 mg/M3; STEL 10 mg/M3 JAN93  
DEL-RUSSIA: STEL 5 mg/M3 JAN93  
NOES 1994: HDZ 06494; NIS 13; TNE 1409; NOS 43; TNE 15976  
NOES 1993: HDZ 06494; NIS 31; TNE 3776; NOS 58; TNE 67721; TFE 27021  
EPA GENETOX PROGRAM 1988, POSITIVE: N CRASSA-REVERSION  
EPA TSCA SECTION 3(B) CHEMICAL INVENTORY  
ON EPA IRIS DATABASE  
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, APRIL 1995  
NTP CARCINOGENESIS STUDIES (GAVAGE): SOME EVIDENCE: MOUSE  
NTPTR* NTP-TR-378, 90  
NTP CARCINOGENESIS STUDIES (GAVAGE): NO EVIDENCE: RAT  
NTPTR* NTP-TR-378, 90

CONTINUED ON NEXT PAGE
SECTION 16. OTHER INFORMATION

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