



SIGMA-ALDRICH

ALDRICH CHEMICAL COMPANY, INC.
P.O. BOX 355
MILWAUKEE, WISCONSIN 53201, USA

ATTN: SAFETY DIRECTOR

EMERGENCY PHONE 1-414-273-3850

RECVG DOCK
SCHOOLCRAFT COLLEGE
18600 HAGGERTY ROAD
LIVONIA MI 48152-3932

DATE 03/17/98
CUST#: 938609
PO#: 86375

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

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

CATALOG #: V110-4
NAME: VANILLIN, 99%

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

CAS #: 121-33-5
MF: C₈H₈O₃
EC NO: 204-465-2

SYNONYMS

M-ANISALDEHYDE, 4-HYDROXY- * BENZALDEHYDE, 4-HYDROXY-3-METHOXY- * P-
HYDROXY-M-METHOXYBENZALDEHYDE * 4-HYDROXY-3-METHOXYBENZALDEHYDE *
LIXIN * 3-METHOXY-4-HYDROXYBENZALDEHYDE * METHYLPROTocatechuic
ALDEHYDE * PROTocatechualdehyde, METHYL- * VANILLA * VANILLALDEHYDE *
VANILLIC ALDEHYDE * P-VANILLIN * VANILLINE * ZIMCO *

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

LABEL PRECAUTIONARY STATEMENTS

HARMFUL
HARMFUL IF SWALLOWED.
IRRITATING TO EYES.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING.
AIR, LIGHT AND MOISTURE SENSITIVE.
KEEP TIGHTLY CLOSED.

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

WATER SPRAY.
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

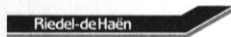
SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO

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PREVENT CONTACT WITH SKIN AND EYES.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

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.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

CHEMICAL SAFETY GOGGLES.
RUBBER GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR.
SAFETY SHOWER AND EYE BATH.
MECHANICAL EXHAUST REQUIRED.
AVOID INHALATION.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
WASH THOROUGHLY AFTER HANDLING.
HARMFUL SOLID.
EYE IRRITANT.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR
WHITE CRYSTALLINE POWDER

PHYSICAL PROPERTIES
BOILING POINT: 170 C/15MM.
MELTING POINT: 81 C TO 83 C
VAPOR PRESSURE: 1MM 107 C
VAPOR DENSITY: 5.3

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

INCOMPATIBILITIES
STRONG OXIDIZING AGENTS
STRONG BASES
STRONG REDUCING AGENTS
PERCHLORIC ACID
MAY DISCOLOR ON EXPOSURE TO LIGHT.
AIR SENSITIVE
MOISTURE SENSITIVE

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

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TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE

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

ACUTE EFFECTS
HARMFUL IF SWALLOWED.
MAY BE HARMFUL IF INHALED.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
CAUSES EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.

RTECS #: YW5775000
VANILLIN

TOXICITY DATA

ORL-RAT LD50:1580 MG/KG
IPR-RAT LD50:1160 MG/KG
SCU-RAT LD50:1500 MG/KG
ORL-MUS LD50:3925 MG/KG
IPR-MUS LD50:475 MG/KG
SKN-RBT LD50:>5010 MG/KG
ORL-GPG LD50:1400 MG/KG

FCTXAV 2,327,1964
COREAF 243,609,1956
RMSRA6 16,449,1896
NTIS** OTS0536271
FAONAU 44A,78,1967
NTIS** OTS0533712
FCTXAV 2,327,1964

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (MIOSIS)
BEHAVIORAL (SOMNOLENCE)
BEHAVIORAL (MUSCLE WEAKNESS)
BEHAVIORAL (COMA)
VASCULAR (BP LOWERING NOT CHARACTERIZED IN AUTONOMIC SECTION)
VASCULAR (ACUTE ARTERIAL OCCULSION)
LUNGS, THORAX OR RESPIRATION (RESPIRATORY STIMULATION)
LUNGS, THORAX OR RESPIRATION (OTHER CHANGES)
LIVER (JAUNDICE, OTHER OR UNCLASSIFIED)
MATERNAL EFFECTS (OVARIES, FALLOPIAN TUBES)
MATERNAL EFFECTS (UTERUS, CERVIX, VAGINA)
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 - - - - -

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

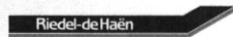
SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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

EUROPEAN INFORMATION

HARMFUL

R 22

HARMFUL IF SWALLOWED.

R 36

IRRITATING TO EYES.

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

NOHS 1974: HZD M0609; NIS 14; TNF 378; NOS 28; TNE 6740

NOES 1983: HZD M0609; NIS 89; TNF 10912; NOS 97; TNE 177946; TFE 69887

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, SEPTEMBER 1997

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

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
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