MATERIAL SAFETY DATA SHEET

SECTION 1. - - - - - - - - - CHEMICAL IDENTIFICATION - - - - - - - - -
CATALOG #:            135011
NAME:                 CATECHOL, 99+%

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -
CAS #:   120-80-9
MF: C6H6O2
EC NO:  204-427-5
SYNONYMS
BENZENE, O-DIHYDROXY- * O-BENZENEDIOL * 1,2-BENZENEDIOL * CATECHIN
(PHENOL) * CATECHOL (ACGIH) * CATECHOL (PHENOL) * C.I. 76500 * C.I.
OXIDATION BASE 26 * O-DIHYDROXYBENZENE * 1,2-DIHYDROXYBENZENE * O-
DIOXYBENZENE * O-DIPHENOL * DURAFUR DEVELOPER C * FOURAMINE PCH *
FOURRINE 68 * O-HYDROQUINONE * O-HYDROXYPHENOL * 2-HYDROXYPHENOL *
KATECHOL (CZECH) * NCI-C55856 * OXYPHENIC ACID * PELOGOL GREY C * O-
PHENYLENEDIOL * PHTHALHYDROQUINONE * PYROCATECHIN * PYROCATECHINE *
PYROKATECHIN (CZECH) *

SECTION 3. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -
LABEL PRECAUTIONARY STATEMENTS
CORROSIVE
CAUSES BURNS.
HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
READILY ABSORBED THROUGH SKIN.
TARGET ORGAN(S):
LIVER, KIDNEYS
NERVES
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF
WATER AND SEEK MEDICAL ADVICE.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE
PROTECTION.
DO NOT BREATHE DUST.
AUTOIGNITION TEMPERATURE:

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.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS
WITH FINGERS.

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - -
EXTINGUISHING MEDIA
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.

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.

SECTION 7. - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - -
REFER TO SECTION 8.

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.
KEEP TIGHTLY CLOSED.
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - -
APPEARANCE AND ODOR
WHITE TO TAN SOLID
PHYSICAL PROPERTIES
BOILING POINT: 245 C
MELTING POINT: 104 C TO 106 C
FLASHPOINT 279 F
EXPLOSION LIMITS IN AIR:
LOWER 1.97%
VAPOR PRESSURE: 1MM 75 C 10MM 118.3 C
SOLUBILITY:
ETHER, CARBON T
SOLUBLE IN CHL
VERY SOLUBLE IN
VAPOR DENSITY: 3.8

SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - - -
CONDITIONS TO AVOID
MAY DISCOLOR ON EXPOSURE TO AIR.
INCOMPATIBILITIES
REACTS VIOLENTLY WITH:
SENSITIVE TO LIGHT
OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE

SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - - -
ACUTE EFFECTS
HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN.
INHALATION MAY RESULT IN SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
CHRONIC EFFECTS
TARGET ORGAN(S):
CENTRAL NERVOUS SYSTEM
KIDNEYS
LIVER
THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT CLASSIFIABLE AS TO ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH, NTP OR EPA CLASSIFICATION.
RTECS #: UX1050000
PYROCATECHOL
TOXICITY DATA
ORL-RAT LD50:260 MG/KG                        AFREAW 3,197,1951
ORL-MUS LD50:260 MG/KG                        AFREAW 3,197,1951
IPR-MUS LD50:68 MG/KG                         PHTOEH 64,247,1989
SCU-MUS LD50:247 MG/KG                        INHEAO 5,143,1967
ORL-DOG LD50:130 MG/KG                        IPSTB3 3,93,1976
ORL-CAT LD50:100 MG/KG                        IPSTB3 3,93,1976
SKN-RBT LD50:800 MG/KG                        AIHAAP 37,596,1976
ORL-GPG LD50:210 MG/KG                        AFREAW 3,197,1951
ORL-MAM LD50:240 MG/KG                        TPKVAL 15,136,1979
TARGET ORGAN DATA
PERIPHERAL NERVE AND SENSATION (SPASTIC PARALYSIS WITH/WITHOUT SENSORY CH
BEHAVIORAL (ALTERED SLEEP TIME)
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)
BEHAVIORAL (CHANGE IN MOTOR ACTIVITY)
BEHAVIORAL (MUSCLE CONTRACTION OR SPASTICITY)
LUNGS, THORAX OR RESPIRATION (DYSPNAE)
BLOOD (LEUKOPENIA)
BLOOD (METHEMOGLOBINEMIA-CARBOXHEMOGLOBINEMIA)
SKIN AND APPENDAGES (PRIMARY IRRITATION)
MATERNAL EFFECTS (OVARIES, FALLOPIAN TUBES)
EFFECTS ON FERTILITY (LITTER SIZE)
NUTRITIONAL AND GROSS METABOLIC (WEIGHT LOSS OR DECREASED WEIGHT GAIN)
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 - - - - - - - -
CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.
SECTION 14. - - - - - - - - - TRANSPORT INFORMATION - - - - - - - -
CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.
SECTION 15. - - - - - - - - - REGULATORY INFORMATION - - - - - - - -
EUROPEAN INFORMATION
EC INDEX NO:     604-016-00-4
CORROSIVE
R 21/22
HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED.
R 36/38
IRRITATING TO EYES AND SKIN.
S 22
DO NOT BREATHE DUST.
S 26
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
S 37
WEAR SUITABLE GLOVES.
REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
ACGIH TLV-CONFIRMED ANIMAL CARCINOGEN          DTLVS* TLV/BEI, 1999
ACGIH TLV-TWA 5 PPM (SKIN)                      DTLVS* TLV/BEI, 1999
IARC CANCER REVIEW: ANIMAL SUFFICIENT EVIDENCE IMEMDT 71,433,1999
IARC CANCER REVIEW: ANIMAL INADEQUATE EVIDENCE IMEMDT 15,155,1977
IARC CANCER REVIEW: HUMAN NO ADEQUATE DATA       IMEMDT 15,155,1977
IARC CANCER REVIEW: HUMAN NO ADEQUATE DATA       IMEMDT 71,433,1999
IARC CANCER REVIEW: GROUP 2B                     IMEMDT 71,433,1999

OEL-AUSTRALIA: TWA 5 PPM (20 MG/M3), JAN1993
OEL-AUSTRIA: MAK 5 PPPM (20 MG/M3), JAN1999
OEL-BELGIUM: TWA 5 PPM (23 MG/M3), JAN1993
OEL-DENMARK: TWA 5 PPM (20 MG/M3), JAN1999
OEL-FINLAND: TWA 5 PPM (22 MG/M3), STEL 10 PPM (45 MG/M3), JAN1999
OEL-FRANCE: VME 5 PPM (20 MG/M3), JAN1999
OEL-THE NETHERLANDS: MAC-TGG 5 PPM (20 MG/M3), JAN1999
OEL-NORWAY: TWA 5 PPM (20 MG/M3), JAN1999
OEL-SWEDEN: NGV 5 PPM (20 MG/M3), KTV 10 PPM (40 MG/M3), SKIN, JAN1999
OEL-SWITZERLAND: MAK-W 5 PPM (23 MG/M3), JAN1999
OEL-UNITED KINGDOM: TWA 5 PPM (23 MG/M3), SEP2000
OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO CATECHOL-AIR: 10H TWA 5 PPM (SK)
NIOSH* DHHS #92-100, 1992
NOHS 1974: HZD M1763; NIS 4; TNF 147; NOS 6; TNE 642
NOES 1983: HZD M1763; NIS 8; TNF 700; NOS 15; TNE 13516; TFE 5799
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES
ON EPA IRIS DATABASE
EPA TSCA TEST SUBMISSION (TSCATS) DATABASE, JANUARY 2001

U.S. INFORMATION
THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.

SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - - -
THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
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