



chemists helping chemists in research & industry

aldrich chemical co.

P.O. Box 355, Milwaukee, Wisconsin 53201 USA

Telephone: (414) 273-3850
TWX: (910) 262-3052 Aldrichem MI
Telex: 26 843 Aldrich MI
FAX: (414) 273-4979

ATTN: SAFETY DIRECTOR
GEORGIA SOUTHERN COLLEGE
CENTRAL RECEIVING
PLANT ROAD
STATESBORO GA 30460

DATE: 12/27/90
CUST#: 926066
PO#: 539-002-057181

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

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IDENTIFICATION

PRODUCT #: 13137-7
CAS #: 66-71-7
MF: C12H8N2

NAME: 1,10-PHENANTHROLINE, 99+%

SYNONYMS

4,5-DIAZAPHENANTHRENE * 1,10-FENANTHROLIN (CZECH) *
ORTHOPHENANTHROLINE * BETA-PHENANTHROLINE * O-PHENANTHROLINE * 1,10-O-PHENANTHROLINE *

TOXICITY HAZARDS

RTECS NO: SF8300000

1,10-PHENANTHROLINE

TOXICITY DATA

IPR-MUS LD50: 75 MG/KG

JPETAB 196,478,76

IVN-MUS LD50: 18 MG/KG

JPETAB 137,1,62

REVIEWS, STANDARDS, AND REGULATIONS

NOHS 1974: HZD 82276; NIS 12; TNF 1002; NOS 11; TNE 8324

NOES 1983: HZD 82276; NIS 30; TNF 2102; NOS 30; TNE 38936; TFE 2198

EPA TSCA CHEMICAL INVENTORY, JUNE 1990

TARGET ORGAN DATA

KIDNEY, URETER, BLADDER (OTHER CHANGES IN URINE COMPOSITION)

KIDNEY, URETER, BLADDER (OTHER CHANGES)

SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)

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

HEALTH HAZARD DATA

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

MAY CAUSE IRRITATION.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND

TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

FIRST AID

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.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.

CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

PHYSICAL DATA

MELTING PT: 114 C TO 117 C

APPEARANCE AND ODOR
WHITE POWDER

FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA
WATER SPRAY.

Belgium/Holland
Aldrich Chemie
Boulevard Lambertus 140 b6
Bd. Lambertus 140 b6
B-1030 Bruxelles/Brussel
Telephone: 114747
Belgium 060224748
Holland 060224748
Telex: 62302 Alchem B
FAX: 022428216

France
Aldrich-Chimie S.a.r.l.
27, Fosse des Trieux
F-67000 Strasbourg
Telephone: 88327010
Telex: 890076 Aldrich F
FAX: 88751283

Italy
Aldrich Chimica S.r.l.
Via Pietro Toselli, 4
20127 Milano
Telephone: 022613689
Telex: 330862 Aldrich I
FAX: 022896301

Japan
Aldrich Japan
Kyoto Bldg. Shinkanda
10 Kanda-Mikurocho
Chiyoda-Ku, Tokyo
Telephone: 032580155
FAX: 032580157

Spain
Aldrich Quimica
Apt. de Correos 181
28100 Alcobendas (Madrid)
Telephone: 91669977
Telex: 28189 SAQS-E
FAX: 916638084

United Kingdom
Aldrich Chemical Co., Ltd.
The Old Brickyard, New Road
Gillingham, Dorset SP8 4JL
Telephone: 0747322211
Telex: 417238 Aldrich G
FAX: 0747823779

West Germany
Aldrich-Chemie GmbH & Co. KG
D-7924 Sietelheim
Telephone: 7328970
Telex: 714838 Aldri O
FAX: 0732987139/239

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----- FIRE AND EXPLOSION HAZARD DATA -----

CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.

SPECIAL FIREFIGHTING PROCEDURES

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

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

----- REACTIVITY DATA -----

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS

STRONG ACIDS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CARBON MONOXIDE, CARBON DIOXIDE

NITROGEN OXIDES

----- SPILL OR LEAK PROCEDURES -----

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

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.

WASTE DISPOSAL METHOD

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 LAWS.

--- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE ---

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

SAFETY SHOWER AND EYE BATH.

MECHANICAL EXHAUST REQUIRED.

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.

HYGROSCOPIC

STORE UNDER NITROGEN.

STORE IN A COOL DRY PLACE.

CONTINUED ON NEXT PAGE

Belgium/Holland
Aldrich Chemie
Boulevard Lambert 140 b6
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B-1030 Bruxelles/Brussel
Telephone:
Belgium 114747
Holland 060224748
Telex: 62302 Alchem B
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France
Aldrich-Chimie S.a.r.l.
27, Fosse des Treize
F-67000 Strasbourg
Telephone: 88327010
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Italy
Aldrich Chimica S.r.l.
Via Pietro Toselli, 4
20127 Milano
Telephone: 022613689
Telex: 330862 Aldrich I
FAX: 022896301

Japan
Aldrich Japan
Kyodo Bldg, Shinkanda
10 Kanda-Mikuracho
Chiyoda-Ku, Tokyo
Telephone: 032580155
Telex: 032580157

Spain
Aldrich Quimica
Apt. de Correos 161
28100 Alcobendas (Madrid)
Telephone: 916639977
Telex: 22189 SAQS-E
FAX: 916638084

United Kingdom
Aldrich Chemical Co., Ltd.
The Old Brickyard, New Road
Gillingham, Dorset SP6 4JL
Telephone: 074782211
Telex: 417239 Aldrich G
FAX: 0747823779

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Aldrich-Chemie GmbH & Co. KG
D-7924 Steinheim
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Telex: 714838 Aldr D
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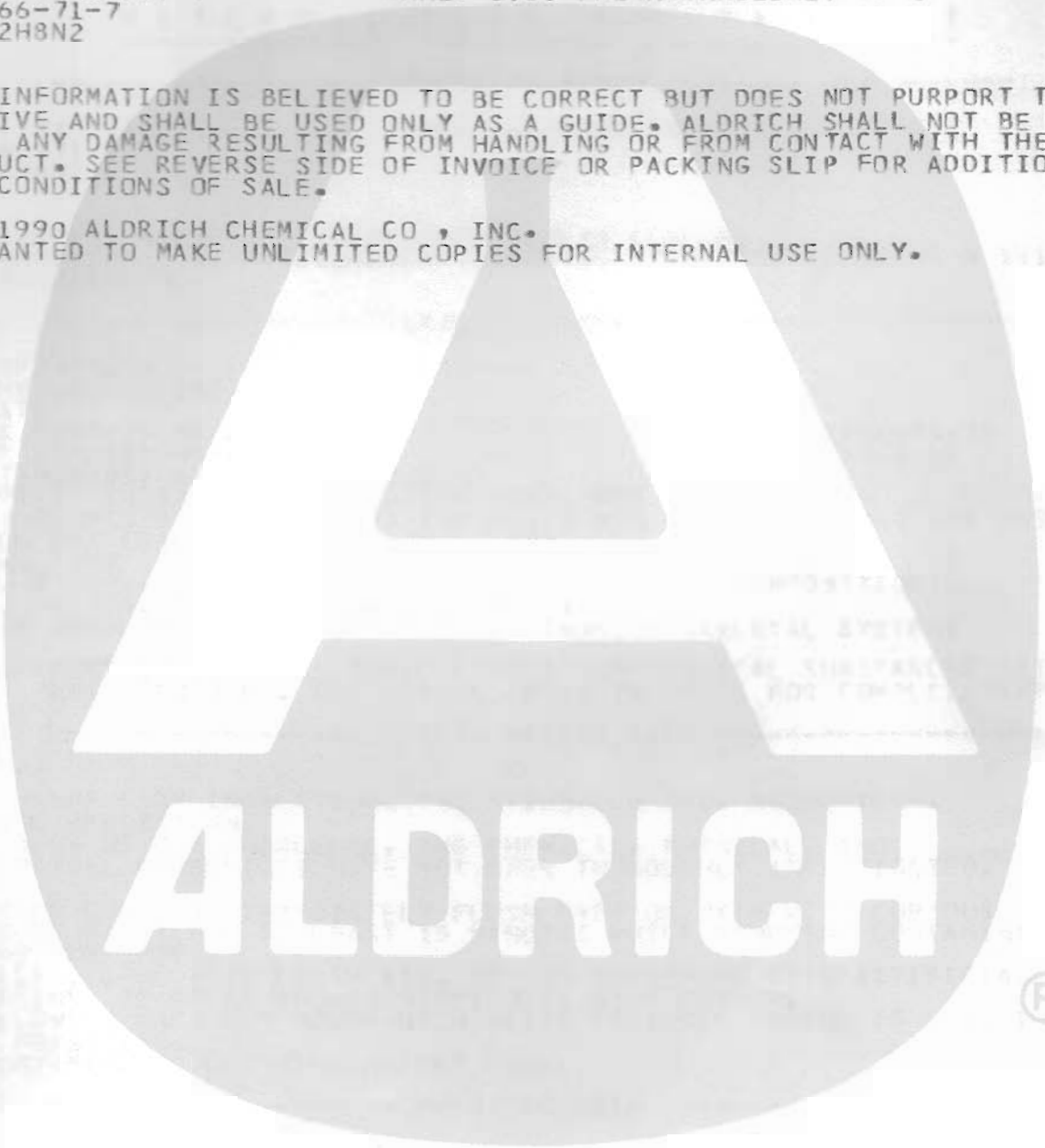
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Belgium/Holland
Aldrich Chemie
Boulevard Lambertmont 140 b6
Bd. Lambertmontaan 140 b6
B-1030 Bruxelles/Brussel
Telephone:
Belgium 114747
Holland 060224748
Telex: 62302 Alchem B
FAX: 02-2623216

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Aldrich-Chimie S.a.r.l.
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D-7924 Steinhelm
Telephone: 7329870
Telex: 714838 Aldri D
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