



chemists helping chemists in research & industry

aldrich chemical co.

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RECEIVING

DATE: 12/09/88
CUST # 938609 P.O. # 61652

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----- IDENTIFICATION -----

PRODUCT # 15894-1 NAME: PENTANE, 98%
CAS # 109-66-0
MF: C5H12

SYNONYMS

AMYL HYDRIDE (DOT) * PENTAN (POLISH) * PENTANE (ACGIH, DOT) * PENTANEN
(DUTCH) * PENTANI (ITALIAN) * UN 1265 (DOT) *

----- TOXICITY HAZARDS -----

RTECS # RZ9450000

PENTANE

TOXICITY DATA

IVN-MUS LD50: 446 MG/KG

JPMSAE 67,566,78

REVIEWS, STANDARDS, AND REGULATIONS

ACGIH TLV-TWA 600 PPM; STEL 750 PPM 85INAB 5,463,86

MSHA STANDARD-AIR: TWA 500 PPM (1475 MG/M3) DTLVS# 3,200,71

OSHA STANDARD-AIR: TWA 1000 PPM FEREAC 39,23540,74

NIOSH REL TO ALKANES-AIR: TWA 350 MG/M3 MMWR** 34(1S),6S,85

EPA TSCA CHEMICAL INVENTORY, 1986

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JUNE 1988

NIOSH ANALYTICAL METHODS: SEE HYDROCARBONS, BP 36-126 C, 1500

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

HARMFUL IF INHALED OR SWALLOWED.

VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.

CAUSES SKIN IRRITATION.

EXPOSURE CAN CAUSE:

DAMAGE TO THE LUNGS

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.

CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

----- PHYSICAL DATA -----

MELTING POINT: -130 C

BOILING POINT: 36 C

SPECIFIC GRAVITY: 0.626

VAPOR DENSITY: 2.48

VAPOR PRESSURE: 426.0 MM @ 20 C
15.57 PSI @ 37.7 C

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

AUTO IGNITION TEMP.: 500 F
LOWER EXPLOSION LEVEL: 1.4%
UPPER EXPLOSION LEVEL: 8.3%
FLASH POINT: -57 F

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL POWDER, ALCOHOL OR POLYMER FOAM.
DO NOT USE WATER.

SPECIAL FIRE FIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

EXTREMELY FLAMMABLE.
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
FLASH BACK.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

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

INCOMPATIBILITIES

OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CARBON MONOXIDE, CARBON DIOXIDE

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
COVER WITH AN ACTIVATED CARBON ADSORBENT, TAKE UP AND PLACE IN CLOSED
CONTAINERS. TRANSPORT OUTDOORS.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

WASTE DISPOSAL METHOD

BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
FLAMMABLE.

OBSERVE ALL FEDERAL, STATE & LOCAL LAWS.

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

CHEMICAL SAFETY GOGGLES.
SAFETY SHOWER AND EYE BATH.
MECHANICAL EXHAUST REQUIRED.
RUBBER GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR.
DO NOT BREATHE VAPOR.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
WASH THOROUGHLY AFTER HANDLING.
IRRITANT.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
OPEN CAREFULLY.
MAY DEVELOP PRESSURE.
HANDLE AND STORE UNDER NITROGEN.
REFRIGERATE.



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----- ADDITIONAL PRECAUTIONS AND COMMENTS -----

NOT APPLICABLE

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