

---

---

SAX'S  
DANGEROUS  
PROPERTIES  
of  
INDUSTRIAL  
MATERIALS

**Eighth Edition**

---

---

**Richard J. Lewis, Sr.**

# Sax's Dangerous Properties of Industrial Materials

Eighth Edition

Volume II

RICHARD J. LEWIS, SR.



VANNOSTRAND REINHOLD  
New York

#### **DISCLAIMER**

Extreme care has been taken in preparation of this work. However, neither the publisher nor the authors shall be held responsible or liable for any damages resulting in connection with or arising from the use of any of the information in this book.

Copyright © 1992 by Van Nostrand Reinhold

Library of Congress Catalog Card Number 92-3896  
ISBN VOLUME I 0-442-01276-4  
ISBN VOLUME II 0-442-01277-2  
ISBN VOLUME III 0-442-01278-0  
ISBN SET 0-442-01132-6

All rights reserved. No part of this work covered by the copyright hereon may be reproduced or used in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems—with written permission of the publisher.

Manufactured in the United States of America

Published by Van Nostrand Reinhold  
115 Fifth Avenue  
New York, NY 10003

Chapman and Hall  
2-6 Boundary Row  
London, SE 1 8HN

Thomas Nelson Australia  
102 Dodds Street  
South Melbourne 3205  
Victoria, Australia

Nelson Canada  
1120 Birchmont Road  
Scarborough, Ontario M1K 5G4, Canada

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

#### **Library of Congress Cataloging-in-Publication Data**

Lewis, Richard J., Sr.

Sax's dangerous properties of industrial materials / Richard J.

Lewis, Sr.—8th ed.

p. cm.

Rev. ed. of: Dangerous properties of industrial materials / N.

Irving Sax and Richard J. Lewis, Sr. 7th ed. ©1989.

Includes bibliographical references and index.

ISBN 0-442-01132-6

1. Hazardous substance—Handbooks, manuals, etc. I. Sax, N.

Irving (Newton Irving). Dangerous properties of industrial materials. II. Title. III. Title: Dangerous properties of industrial materials.

T55.3.H3S3 1992

604.7—dc20

92-3896  
CIP

# Preface

This eighth edition of *Dangerous Properties of Industrial Materials*, a three volume set, represents a major revision and updating of the seventh edition. The objective of the book, however, remains the same: to promote safety by providing the most up-to-date hazard information available. The growth in the availability of toxicological and hazard control reports continues unabated. This book cannot contain all the published data and continue to provide the accessibility for which it is known. To continue to provide complete hazard assessments for the maximum number of entries, data for each entry has been selectively reduced. In particular, carcinogenic and reproductive data lines above those required to establish the hazard of the entry have been excluded. Complete data for these entries are available in the books *Carcinogenically Active Chemicals* and *Reproductively Active Chemicals*, both available from the publisher.

Over 14,000 entries have been revised for this edition, and 1,500 new entries have been added. Some less useful entries have been eliminated or combined with related entries. Emphasis has been placed on including new carcinogenic and reproductive entries. A special effort has resulted in a significant increase in entries containing skin and eye irritation data.

All carcinogenic entries were reviewed and have been categorized as either confirmed, suspected, or questionable. This assessment was based on a detailed classification scheme discussed under Safety Profiles in the Introduction.

All reproductive entries have been updated and new data added.

Numerous synonyms have been added to assist in locating the many materials which are known under a variety of systematic and common names. The synonym cross-index contains the entry name as well as each synonym. This index should be consulted first to locate a material by name. Synonyms are given in English, as well as other major languages such as French, German, Dutch, Polish, Japanese, and Italian.

Additional physical and chemical properties have been added. Whenever available, physical descriptions, formulas, molecular weights, melting points, boiling points,

explosion limits, flash points, densities, autoignition temperatures, and the like, have been supplied.

The following classes of data have been updated for all entries for which they apply as follows:

1. IARC Group 1-4 classes and recent assessments.
2. OSHA revised standards which were published in January 1989 and take effect on December 31, 1992.
3. ACGIH TLVs and BEIs reflect the latest recommendations and now include "intended Changes."
4. NTP Fifth Annual Report on Carcinogens entries are identified.
5. DOT classifications now have the corresponding guide number for entries having multiple guide numbers.
6. CAS numbers are provided for additional entries.

Each entry concludes with a safety profile, a textual summary of the hazards presented by the entry. The discussion of human exposures includes target organs and specific effects reported. Carcinogenic and reproductive assessments have been completely revised for this edition.

Fire and explosion hazards are briefly summarized in terms of conditions of flammable or reactive hazard. Where feasible, fire-fighting materials and methods are discussed. Materials which are known to be incompatible with an entry are listed here.

Also included in the safety profile are comments on disaster hazards which serve to alert users of materials to the dangers that may be encountered on entering storage premises during a fire or other emergency. Although the presence of water, steam, acid fumes, or powerful vibrations can cause the decomposition of many materials into dangerous compounds, of particular concern are high temperatures (such as those resulting from a fire) since these can cause many otherwise mild chemicals to emit highly toxic gases or vapors such as NO<sub>x</sub>, SO<sub>x</sub>, acids, and so forth, or evolve vapors of antimony, arsenic, mercury, and the like.

The book, which consists of three volumes, is divided as follows:

The first volume contains a CAS number cross-index, a synonym cross-index, and the complete citations for bibliographic references given in the data section.

Section 1 contains the CAS Number cross-index for CAS numbers for the listed materials.

Section 2 contains the prime name and synonym cross-index for the listed materials.

Section 3 contains the complete bibliographic references.

The main section of the book is contained in the Volumes II and III. It lists and describes approximately 20,000 materials in alphabetical order by entry name.

Please refer to the Introduction in Volume I for an explanation of the sources of data and codes used.

Every effort was made to include the most current and complete information. The author welcomes comments or corrections to the data presented.

Richard J. Lewis, Sr.

# Key to Abbreviations

abs - absolute	htg - heating
ACGIH - American Conference of Governmental Industrial Hygienists	IARC - International Agency for Research on Cancer
alc - alcohol	immisc - immiscible
alk - alkaline	incomp - incompatible
amorph - amorphous	insol - insoluble
anhyd - anhydrous	IU - International Unit
approx - approximately	kg - kilogram (one thousand grams)
aq - aqueous	L,l - liter
atm - atmosphere	lel - lower explosive limit
autoign - autoignition	liq - liquid
aw - atomic weight	M - minute(s)
af - atomic formula	m <sup>3</sup> - cubic meter
BEI - ACGIH Biological Exposure Indexes	mf - molecular formula
bp - boiling point	mg - milligram
b range - boiling range	misc - miscible
CAS - Chemical Abstracts Service	μ, u - micron
cc - cubic centimeter	mL, ml - milliliter
CC - closed cup	mm - millimeter
CL - ceiling concentration	mod - moderately
COC - Cleveland open cup	mp - melting point
conc - concentration, concentrated	mppcf - million particles per cubic foot
compd(s) - compound(s)	mw - molecular weight
contg - containing	ng - nanogram
cryst, crys - crystal(s), crystalline	NIOSH - National Institute for Occupational Safety and Health
d - density	nonflam - nonflammable
D - day(s)	NTP - National Toxicology Program
decomp, dec - decomposition	OBS - obsolete
deliq - deliquescent	OC - open cup
dil - dilute	org - organic
DOT - U.S. Department of Transportation	OSHA - Occupational Safety and Health Administration
EPA - U.S. Environmental Protection Agency	Pa - Pascals
eth - ether	PEL - permissible exposure level
(F) - Fahrenheit	petr - petroleum
FCC - Food Chemical Codex	pg - picogram (one trillionth of a gram)
FDA - U.S. Food and Drug Administration	Pk - peak concentration
flam - flammable	pmole - picomole
flash p - flash point	powd - powder
fp - freezing point	ppb - parts per billion (v/v)
g, gm - gram	pph - parts per hundred (v/v)(percent)
glac - glacial	ppm - parts per million (v/v)
gran - granular, granules	ppt - parts per trillion (v/v)
hygr - hygroscopic	prep - preparation
H, hr - hour(s)	PROP - properties
HR: - hazard rating	refr - refractive
htd - heated	rhomb - rhombic

S,sec – second(s)  
sl,slt,sltly – slightly  
sol – soluble  
soln – solution  
solv(s) – solvent(s)  
spont – spontaneous(ly)  
STEL – short term exposure limit  
subl – sublimes  
TCC – Tag closed cup  
tech – technical  
temp – temperature  
TLV – Threshold Limit Value  
TOC – Tag open cup  
TWA – time weighted average  
U, unk – unknown, unreported  
 $\mu$ , u – micron  
uel – upper explosive limit  
 $\mu\text{g}$ , ug – microgram

ULC, ulc – Underwriters Laboratory Classification  
USDA – U.S. Department of Agriculture  
vac – vacuum  
vap – vapor  
vap d – vapor density  
vap press – vapor pressure  
vol – volume  
visc – viscosity  
vsol – very soluble  
W – week(s)  
Y – year(s)  
% – percent(age)  
> – greater than  
< – less than  
 $\leq$  – equal to or less than  
 $\geq$  – equal to or greater than  
° – degrees of temperature in Celsius (Centigrade)  
(F), °F – temperature in Fahrenheit

# **General Chemicals**

## **A-F**

# Contents

## VOLUME I

Preface	ix
Key to Abbreviations	xi
Introduction	xiii
Section 1 CAS Registry Cross-Index	1
Section 2 Synonym Cross-Index	43
Section 3 References	693
Volume II: General Chemicals: Entries A—F	1-1772
Volume III: General Chemicals: Entries G—Z	1773-3553

# A

<b>AAB250</b>		<b>HR: 2</b>	CONSENSUS REPORTS: Reported in EPA TSCA Inventory.
<b>A-200 PYRINATE</b>			
PROP: Composed of pyrethrins, piperonyl butoxide, deodorized kerosene (AROPAW 68,36,62).			
TOXICITY DATA with REFERENCE eye-rbt 50 mg SEV AROPAW 68,36,62			
SAFETY PROFILE: A severe eye irritant.			
<b>AAC000</b>	CAS:1405-35-2	<b>HR: 3</b>	
<b>ABBOTT ANTIBIOTIC M259</b>			
SYNS: A 6413 ◇ M 259			
TOXICITY DATA with REFERENCE ipr-mus LD50:1470 µg/kg 85FZAT -,739,67 ivn-mus LD50:2210 µg/kg 85FZAT -,739,67			
SAFETY PROFILE: Poison by intraperitoneal and intravenous routes.			
<b>AAC250</b>	CAS:8021-27-0	<b>HR: 2</b>	
<b>ABIES ALBA OIL</b>			
PROP: Colorless to pale-yellow oil from the steam distillation of the crushed cones of <i>Abies Alba Mill</i> (FCTXAV 12,807,74).			
SYNS: OIL of ABIES ALBA ◇ OIL of FUR ◇ OIL of SILVER FIR ◇ OIL of SILVER PINE ◇ SILVER FIR NEEDLE OIL ◇ SILVER FIR OIL ◇ SILVER PINE OIL ◇ TEMPLIN OIL			
TOXICITY DATA with REFERENCE skn-rbt 500 mg/24H MOD FCTXAV 12,807,74			
CONSENSUS REPORTS: Reported in EPA TSCA Inventory.			
SAFETY PROFILE: A skin irritant. When heated to decomposition it emits acrid smoke and irritating fumes.			
<b>AAC500</b>	CAS:514-10-3	<b>HR: 3</b>	
<b>ABIETIC ACID</b>			
mf: C <sub>20</sub> H <sub>30</sub> O <sub>2</sub> mw: 302.50			
PROP: Yellow powder. Mp: 172-175°.			
SYNS: 13-ISOPROPYLPODOCARPA-7,13-DIEN-15-OICACID ◇ SILVIC ACID			
TOXICITY DATA with REFERENCE ivn-mus LD50:180 mg/kg CSLNX* NX#02819			
<b>AAC875</b>	CAS:55077-30-0	<b>HR: 3</b>	
<b>ABOVIS</b>			
mf: C <sub>10</sub> H <sub>20</sub> NO <sub>4</sub> •1/2C <sub>10</sub> H <sub>6</sub> O <sub>6</sub> S <sub>2</sub> mw: 361.42			
PROP: Crystals. Mp: 189-191°.			
SYNS: (2-ACETYLACTOXYETHYL)TRIMETHYLAMMONIUM HEMI-1,5-NAPHTHALENEDISULFONATE ◇ (2-ACETYLACTOXYETHYL)TRIMETHYLAMMONIUM 1,5-NAPHTHALENEDISULFONATE ◇ 2-(2-(ACETOXY)-1-OXOPROPOXY)-N,N,N-TRIMETHYLETHANAMINIUM 1,5-NAPHTHALENEDISULFONATE(2:1) ◇ ACLATONIUM NAPADISLATE ◇ CHOLINE 1,5-NAPHTHALENEDISULFONATE (2:1), DILACTATE, DIACETATE ◇ TM 723			
TOXICITY DATA with REFERENCE orl-mus TDLo:600 g/kg (9W male/2W pre-6D preg):TER OYYAA2 18,923,79 orl-rat TDLo:60 g/kg (30D male):REP OYYAA2 18,749,79 orl-rat LDLo:15 g/kg IYKEDH 12,1204,81 scu-rat LD50:986 mg/kg OYYAA2 13,497,77 ivn-rat LD50:46 mg/kg OYYAA2 13,497,77 orl-mus LD50:15 g/kg USXXAM #3903137 scu-mus LD50:826 mg/kg OYYAA2 13,497,77 ivn-mus LD50:41900 µg/kg IYKEDH 12,30420,81			
SAFETY PROFILE: Poison by intravenous route. Moderately toxic by subcutaneous route. An experimental teratogen. Other experimental reproductive effects. When heated to decomposition it emits toxic fumes of NO <sub>x</sub> and SO <sub>x</sub> . A cholinergic agent. See also SULFONATES.			
<b>AAD000</b>	CAS:1393-62-0	<b>HR: 3</b>	
<b>ABRIN</b>			
PROP: Yellowish-white powder. Sol in solns of sodium chloride, usually with turbidity. Incubation at 60° for 30 min fails to remove toxic effect, but at 80°, most of the toxicity is lost.			
SYNS: ABRINS ◇ AGGLUTININ ◇ CRAB'S EYES ◇ INDIAN LICO-RICE SEED ◇ JUMBLE BEAD ◇ PRAYER BEAD ◇ TOXALBUMIN			

**AAD100 ABRUS PRECATORIUS L., seed kernel extract**

2

**TOXICITY DATA with REFERENCE**

dni-mus-ast	50 µg/kg	TOXIA6 11,379,73
orl-hmn	LDLo:7 µg/kg	MEIEDD 10,1,83
orl-rat	LDLo:300 mg/kg	AMIHAB 12,468,55
orl-mus	LD50:6638 mg/kg	ARZNAD 21,888,71
ipr-mus	LD50:20 µg/kg	85GDA2 8(1),107,82
ivn-mus	LD50:20 µg/kg	MEIEDD 10,1,83
orl-rbt	LDLo:21 mg/kg	AMIHAB 12,468,55
orl-gpg	LD50:299 mg/kg	ARZNAD 21,888,71

**SAFETY PROFILE:** A deadly poison to humans by ingestion. Poison by ingestion, intravenous, and intraperitoneal route. Mutation data reported. When heated to decomposition it emits acrid fumes and irritating smoke. See also RICIN; LECTINS. Note: Do not confuse with abrine.

**AAD100 HR: 3****ABRUS PRECATORIUS L., seed kernel extract****TOXICITY DATA with REFERENCE**

orl-rat	TDLo:6 g/kg (male 60D pre):REP	AEFTAA 18,217,87
ipr-mus	LD50:550 ng/kg	CTYAD8 18,196,87
scu-mus	LD50:200 µg/kg	TOXIA6 6,211,69
scu-gpg	LDLo:430 µg/kg	TOXIA6 7,211,69

**SAFETY PROFILE:** Poison by intraperitoneal and subcutaneous routes. Experimental reproductive effects. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAD125 HR: D****ABRUS PRECATORIUS OIL**

PROP: The oil extracted from the seeds of *Abrys precatorius* (IJPAOO 29,235,67).

**TOXICITY DATA with REFERENCE**

orl-mus	TDLo:1250 mg/kg (10D pre/1-10D preg):REP	IJPAAO 29,235,67
---------	---	------------------

**SAFETY PROFILE:** Experimental reproductive effects. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAD250 CAS:93164-88-6 HR: 2****ACACIA (EXTRACT)**

PROP: Indian plant belonging to the family *Leguminosae* (IJEBA6 7,250,69).

SYN: BABUL STEM BARK EXTRACT

**TOXICITY DATA with REFERENCE**

ipr-mus	LD50:500 mg/kg	IJEBA6 7,250,69
---------	----------------	-----------------

**SAFETY PROFILE:** Moderately toxic by intraperitoneal route. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAD500 HR: 2****ACACIA FARNESIANA (Linn.) Willd., extract  
excluding roots**

PROP: Indian plant belonging to the family *Mimosaceae* (IJEBA6 22,487,84)

**TOXICITY DATA with REFERENCE**

orl-rat	TDLo:150 mg/kg (female 12-14D post):REP	IJEBA6 22,487,84
ipr-mus	LD50:562 mg/kg	IJEBA6 22,487,84

**SAFETY PROFILE:** Moderately toxic by intraperitoneal route. Experimental reproductive effects. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAD750 HR: 3****ACACIA VILLOSA**

PROP: Aqueous extract from the root of the plant (JNCIAM 52,1579,74).

SYN: WATAPANA SHIMARON

**TOXICITY DATA with REFERENCE**

scu-rat	TDLo:198 mg/kg/22W-I:NEO	JNCIAM 52,1579,74
imp-ham	TDLo:1660 mg/kg:CAR	JNCIAM 53,1259,74
scu-rat	TD:300 g/kg/60W-I:NEO,REP	JNCIAM 52,445,74

**SAFETY PROFILE:** Experimental reproductive effects. Questionable carcinogen with experimental neoplastigenic and carcinogenic data. When heated to decomposition it emits smoke and acrid fumes.

**AAD875 CAS:5892-41-1 HR: 3****ACAMYLOPHENINE DIHYDROCHLORIDE**

mf: C<sub>19</sub>H<sub>32</sub>N<sub>2</sub>O<sub>2</sub>•2CIH mw: 393.45

SYNS: AVACAN ◇ CAMYLOFINE DIHYDROCHLORIDE  
◇ CAMYLOFINE HYDROCHLORIDE ◇ CAMYLOFIN HYDROCHLORIDE

**TOXICITY DATA with REFERENCE**

orl-mus	LD50:760 mg/kg	MEIEDD 10,239,83
scu-mus	LD50:1350 mg/kg	MEIEDD 10,239,83
ivn-mus	LD50:49200 µg/kg	MEIEDD 10,239,83

**SAFETY PROFILE:** Poison by intravenous route. Moderately toxic by ingestion and other routes. When heated to decomposition it emits toxic fumes of NO<sub>x</sub> and HCl. See also ESTERS.

**AAE000 CAS:3697-25-4 HR: 3****4,10-ACE-1,2-BENZANTHRACENE**

mf: C<sub>20</sub>H<sub>14</sub> mw: 254.34

SYN: 1,2-DIHYDROBENZ(e)ACEANTHRYLENE  
◇ 5,6-DIHYDROBENZENE(e)ACEANTHRYLENE

**TOXICITY DATA with REFERENCE**

scu-mus	TDLo:4 mg/kg:ETA	AJCAA7 33,499,38
---------	------------------	------------------

**SAFETY PROFILE:** Questionable carcinogen with experimental tumorigenic data. When heated to decomposition it emits acrid smoke and fumes.

**AAE100** CAS:37517-30-9 **HR: 3**

**ACEBUTOLOL**

mf: C<sub>18</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub> mw: 336.48

PROP: Crystals. Mp: 119-123°.

SYNS: (±)-ACEBUTOLOL ◇ dl-ACEBUTOLOL ◇ 1-(2-ACETYL-4-n-BUTYRAMIDOPHENOXY)-2-HYDROXY-3-ISOPROPYLAMINOPROPANE ◇ 3'-ACETYL-4'-(2-HYDROXY-3-(ISOPROPYLAMINO)PROPOXY)BUTYRANILIDE ◇ (±)-N-(3-ACETYL-4-(2-HYDROXY-3-((1-METHYLETHYL)AMINO)PROPOXY)PHENYL)BUTANAMIDE ◇ 5'-BUTYRAMIDO-2'-2-HYDROXY-3-ISOPROPYLAMINO-PROPOXY)ACETOPHENONE ◇ PRENT

**TOXICITY DATA with REFERENCE**

unr-wmn TDLo:1080 mg/kg (1-39W preg):REP

BMJOAE 283,1077,81

orl-wmn TDLo:120 mg/kg (34-39W preg):TER

DPTHDL 4(Suppl 1),109,82

orl-wmn TDLo:152 mg/kg:CVS,BPR JTCTDW 20,69,83

ivn-dog LD50:4 mg/kg MASODV 16,13,80

**SAFETY PROFILE:** Moderately toxic by intravenous route. Human systemic effects by ingestion: developmental abnormalities of the cardiovascular and respiratory systems; effects on newborn in biochemical and metabolic abnormalities and reduced growth statistics. A human teratogen. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>. A beta-adrenergic blocker.

**AAE125** CAS:34381-68-5 **HR: 3**

**ACEBUTOLOL HYDROCHLORIDE**

mf: C<sub>18</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub>•CIH mw: 372.94

SYNS: ACETOBUTOLOL HYDROCHLORIDE ◇ dl-1-(2-ACETYL-4-BUTYRAMIDOPHENOXY)-2-HYDROXY-3-ISOPROPYLAMINOPROPANE HYDROCHLORIDE ◇ 3'-ACETYL-4'-(2-HYDROXY-3-(ISOPROPYLAMINO)PROPOXY)BUTYRANILIDEHYDROCHLORIDE ◇ M&B 17,803A ◇ SECTRAL

**TOXICITY DATA with REFERENCE**

orl-rat TDLo:1100 mg/kg (7-17D preg):REP OYYAA2

15,885,78

orl-rat TDLo:1100 mg/kg (7-17D preg):TER OYYAA2

15,885,78

orl-rat LD50:6620 mg/kg OYYAA2 20,883,80

ipr-rat LD50:222 mg/kg OYYAA2 15,837,78

scu-rat LD50:1310 mg/kg OYYAA2 15,837,78

ivn-rat LD50:103 mg/kg OYYAA2 15,837,78

orl-mus LD50:4050 mg/kg NIIRDN 6,19,82

ipr-mus LD50:185 mg/kg OYYAA2 15,837,78

scu-mus LD50:291 mg/kg OYYAA2 15,837,78

ivn-mus LD50:53 mg/kg NIIRDN 6,19,82

orl-rbt LD50:296 mg/kg OYYAA2 15,837,78

ivn-rbt LD50:41 mg/kg OYYAA2 16,837,78

**SAFETY PROFILE:** Poison by ingestion, subcutaneous, intravenous, and intraperitoneal routes. An experimental teratogen. Other experimental reproductive effects. When heated to decomposition it emits toxic fumes of NO<sub>x</sub> and HCl.

**AAE250** CAS:827-61-2 **HR: 3**

**ACECLIDINE**

mf: C<sub>9</sub>H<sub>15</sub>NO<sub>2</sub> mw: 169.25

SYNS: 3-ACETOXYQUINUCLIDINEGLAUCOSTAT  
◇ 3-QUINUCLIDINOL ACETATE

**TOXICITY DATA with REFERENCE**

scu-rat LD50:225 mg/kg ARZNAD 18,320,68

ivn-rat LD50:45 mg/kg ARZNAD 18,320,68

orl-mus LD50:165 mg/kg ARZNAD 18,320,68

scu-mus LD50:102 mg/kg ARZNAD 18,320,68

ivn-mus LD50:36 mg/kg RPTOAN 35(2),55,72

**SAFETY PROFILE:** Poison by ingestion, subcutaneous, and intravenous routes. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>.

**AAE500** CAS:3685-84-5 **HR: 3**

**ACEFEN**

mf: C<sub>12</sub>H<sub>16</sub>ClNO<sub>3</sub>•CIH mw: 294.20

SYNS: AMIPOLNE ◇ 235 ANP HYDROCHLORIDE ◇ BRENAL  
◇ CELLATIVE ◇ CENTROPHENOXINE ◇ CERUTIL  
◇ (p-CHLOROPHENOXY)ACETIC ACID 2-(DIMETHYLAMINO)ETHYL ESTER HYDROCHLORIDE ◇ CLOCETE ◇ DIMETHYLAMINOETHYL p-CHLOROPHENOXYACETATEHYDROCHLORIDE  
◇ DIMETHYLAMINOETHYL 4-CHLOROPHENOXYACETATE HYDROCHLORIDE ◇ DIMETHYLAMINOETHYL ESTER of p-CHLOROPHENOXYACETIC ACID HYDROCHLORIDE ◇ HELFERGIN  
◇ LUCIDRIL ◇ LUCIDRYL HYDROCHLORIDE ◇ MARUCOTOL  
◇ MECLOFENOXATE HYDROCHLORIDE ◇ METHOYNAL  
◇ NSC 113619 ◇ PROSEROUT

**TOXICITY DATA with REFERENCE**

orl-rat LD50:865 mg/kg KSKZAN 16(2),59,78

ipr-mus LD50:660 mg/kg NIIRDN 6,814,82

scu-mus LD50:1560 mg/kg NIIRDN 6,814,82

orl-mus LD50:1750 mg/kg CRSBAW 153,1914,59

ipr-mus LD50:845 mg/kg CRSBAW 153,1914,59

ivn-mus LD50:350 mg/kg CRSBAW 153,1914,59

ivn-rbt LDLo:150 mg/kg CRSBAW 153,1914,59

**SAFETY PROFILE:** Poison by intravenous route. Moderately toxic by ingestion and intraperitoneal routes. When heated to decomposition it emits very toxic fumes of Cl<sup>-</sup>, NO<sub>x</sub>, and HCl.

**AAE625** CAS:53164-05-9 **HR: 3**

**ACEMETACIN**

mf: C<sub>21</sub>H<sub>18</sub>ClNO<sub>6</sub> mw: 415.83

PROP: Very fine, pale yellow crystals from petr ether. Mp: 150-153°.

**SYNS:** ACM ◇ 1-(p-CHLORBENZOYL)-5-METHOXY-2-METHYLINDOL-3-ACETOXY)ESSIGSAEURE(GERMAN)  
 ◇ 1-(4-CHLORBENZOYL)-5-METHOXY-2-METHYL-1H-INDOLE-3-ACETIC ACID CARBOXYMETHYL ESTER  
 ◇ ((1-(4-CHLORBENZOYL)-5-METHOXY-2-METHYLINDOLE-3-YL)ACETOXY)ACETIC ACID ◇ K-708 ◇ RANTUDIL ◇ TV 1322

**TOXICITY DATA with REFERENCE**

orl-rat TDLo:44 mg/kg (7-17D preg):REP OYYAA2

22,765,81

orl-rat TDLo:44 mg/kg (7-17D preg):TER OYYAA2

22,765,81

orl-rat LD50:24 mg/kg ARZNAD 30,1398,80

ipr-rat LD50:23 mg/kg ARZNAD 30,1398,80

scu-rat LD50:28 mg/kg ARZNAD 30,1398,80

ivn-rat LD50:28 mg/kg ARZNAD 30,1398,80

ims-rat LD50:19 mg/kg ARZNAD 30,1398,80

orl-mus LD50:18 mg/kg ARZNAD 30,1398,80

ipr-mus LD50:23 mg/kg ARZNAD 30,1398,80

scu-mus LD50:23 mg/kg ARZNAD 30,1398,80

ivn-mus LD50:34 mg/kg ARZNAD 30,1398,80

**SAFETY PROFILE:** Poison by ingestion, subcutaneous, intraperitoneal, intravenous, and intramuscular routes. An experimental teratogen. Other experimental reproductive effects. When heated to decomposition it emits toxic fumes of Cl<sup>-</sup> and NO<sub>x</sub>. An anti-inflammatory agent.

**AAE750****HR: 1****ACENAPHTHALENE**

mf: C<sub>10</sub>H<sub>6</sub>(CH<sub>2</sub>)<sub>2</sub> mw: 154.2

**PROP:** White, elongated crystals. Mp: 95°, bp: 277.5°, d: 1.024 @ 99°/4°, vap press.: 10 mm @ 131.2°, vap d: 5.32. Insol in water, sltly sol in hot alc, ether, and chloroform.

**SYN:** 1,8-ETHYLENE NAPHTHALENE.

**TOXICITY DATA with REFERENCE**

mma-sat 490 μmol/L/2H CNREA8 39,4152,79

**SAFETY PROFILE:** Mutation data reported. A skin and mucous membrane irritant. May cause acute vomiting if swallowed in large quantities. Combustible. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAF000****CAS:5779-79-3****HR: 3****ACENAPHTHANTHRACENE**

mf: C<sub>20</sub>H<sub>14</sub> mw: 254.34

**SYNS:** BENZ(k)ACEPHENANTHRENE

◇ 4,5-DIHYDROBENZ(k)ACEPHENANTHRYLENE

◇ 3:4-DIMETHYLENE-1:2-BENZANTHRACENE

**TOXICITY DATA with REFERENCE**

skn-mus TDLo:960 mg/kg/40W-I:ETA PRLBA4

129,439,40

**SAFETY PROFILE:** Questionable carcinogen with experimental tumorigenic data. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAF250****CAS:4657-93-6****HR: 3****5-ACENAPHTHENAMINE**

mf: C<sub>12</sub>H<sub>11</sub>N mw: 169.24

**PROP:** Colorless needles, sol in ethanol. Mp: 108°.

**SYNS:** 5-AMINOACENAPHTHENE ◇ 1,2-DIHYDRO-5-ACENAPHTHENAMINE

**TOXICITY DATA with REFERENCE**

ipr-mus TDLo:3744 mg/kg/78W-I:ETA NEZAAQ

24,263,69

imp-mus TDLo:160 mg/kg:CAR NEZAAQ 24,263,69

ivn-mus LD50:56 mg/kg CSLNX\* NX#01911

**CONSENSUS REPORTS:** IARC Cancer Review: Group 3 IMEMDT 7,56,87; Animal Inadequate Evidence IMEMDT 16,243,78

**SAFETY PROFILE:** Poison by intravenous route. Questionable carcinogen with experimental carcinogenic and tumorigenic data. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>.

**AAF500****CAS:208-96-8****HR: D****ACENAPHTHYLENE**

mf: C<sub>12</sub>H<sub>8</sub> mw: 152.20

**SYN:** CYCLOPENTA(de)NAPHTHALENE

**TOXICITY DATA with REFERENCE**

mma-sat 1 mmol/L/2H CNREA8 39,4152,79

**CONSENSUS REPORTS:** Reported in EPA TSCA Inventory.

**SAFETY PROFILE:** Mutation data reported. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAF625****CAS:72064-79-0****HR: 3****ACEPREVAL**

mf: C<sub>28</sub>H<sub>38</sub>O<sub>7</sub> mw: 486.66

**SYNS:** 21-(ACETYLOXY)-11-β-HYDROXY-17-((1-OXOPENTYL)OXY)PREGNA-1,4-DIENE-3,20-DIONE ◇ PREDNISOLONE VALERATE ACETATE ◇ PREDNISOLONE-17-VALERATE-21-ACETATE ◇ PVA ◇ 11-β,17-α,21-TRIHYDROXY-1,4-PREGNADIENE-3,20-DIONE-21-ACETATE-17-VALERATE

**TOXICITY DATA with REFERENCE**

scu-rat TDLo:55 mg/kg (7-17D preg):REP OYYAA2

20,67,80

scu-rat TDLo:110 mg/kg (7-17D preg):TER OYYAA2

20,67,80

ipr-mus LD50:1360 mg/kg OYYAA2 20,195,80

scu-mus LD50:1150 mg/kg OYYAA2 20,195,80  
 scu-rbt LD50:100 mg/kg OYYAA2 20,195,80

**SAFETY PROFILE:** Poison by subcutaneous route. Moderately toxic by other routes. An experimental teratogen. Other experimental reproductive effects.

**AAF750** CAS:3598-37-6 **HR: 3**

**ACEPROMAZINE MALEATE**

mf: C<sub>19</sub>H<sub>22</sub>N<sub>2</sub>OS•C<sub>4</sub>H<sub>4</sub>O<sub>4</sub> mw: 442.57

SYNS: 2-ACETYL-10-(3-(DIMETHYLAMINO)PROPYL)PHENOTHIAZINE, MALEATE ◇ ACETYL PROMAZINE MALEATE (1:1)  
 ◇ ATRAVET ◇ 10-(3-(DIMETHYLAMINO)PROPYL)PHENOTHIAZIN-2-YL METHYL KETONE MALEATE (1:1) ◇ MALEATE ACIDE de l'ACETYL-3-DIMETHYLAMINO-3-PROPYL-10-PHENOTHIAZINE (FRENCH) ◇ NOTENSIL ◇ PREGICIL ◇ SOPRONTIN

**TOXICITY DATA with REFERENCE**

orl-rat LD50:400 mg/kg AIPTAK 123,78,59

ivn-rat LD50:95 mg/kg MEIEDD 10,5,83

orl-mus LDLo:270 mg/kg AIPTAK 113,53,57

scu-mus LD50:175 mg/kg AIPTAK 113,53,57

ivn-mus LD50:65 mg/kg APTOA6 19,87,62

**SAFETY PROFILE:** Poison by ingestion, subcutaneous, and intravenous routes. When heated to decomposition it emits highly toxic fumes of NO<sub>x</sub> and SO<sub>x</sub>. See also KETONES.

**AAG000** CAS:105-57-7 **HR: 3**

**ACETAL**

DOT: UN 1088

mf: C<sub>6</sub>H<sub>14</sub>O<sub>2</sub> mw: 118.20

PROP: Colorless, volatile liquid; agreeable odor, nutty after-taste. Bp: 102.7°, flash p: -5°F (CC), lel: 1.65%, uel: 10.4%, d: 0.831, autoign temp: 446°F, vap press: 10 mm @ 8.0°, vap d: 4.08, mp: -100°. Sltly sol in water; misc in alc and ether.

SYNS: ACETAAL (DUTCH) ◇ ACETAL DIETHYLIQUE (FRENCH)

◇ ACETALE (ITALIAN) ◇ 1,1-DIAETHOXY-AETHAN (GERMAN)

◇ DIAETHYLACETAL (GERMAN) ◇ 1,1-DIETHOXY-ETHAAN

(DUTCH) ◇ 1,1-DIETHOXYETHANE ◇ DIETHYL ACETAL

◇ 1,1-DIETOSIETANO (ITALIAN) ◇ ETHYLIDENE DIETHYL

ETHER ◇ USAF DO-45

**TOXICITY DATA with REFERENCE**

skn-rbt 10 mg/24H MLD JIHTAB 31,60,49

eye-rbt 500 mg JIHTAB 31,60,49

orl-rat LD50:4600 mg/kg MDZEAK 8,244,67

ihl-rat TCLo:4000 ppm/4H JIHTAB 31,343,49

orl-mus LD50:3500 mg/kg GISAAA (3),12,77

ipr-mus LD50:500 mg/kg NTIS\*\* AD277-689

orl-rbt LD50:3545 mg/kg PSEBAA 29,730,32

**CONSENSUS REPORTS:** Reported in EPA TSCA Inventory.

DOT Classification: Label: Flammable Liquid.

**SAFETY PROFILE:** Moderately toxic by ingestion and intraperitoneal routes. A skin and eye irritant. A narcotic. Dangerous fire hazard when exposed to heat or flame; can react vigorously with oxidizing materials. Forms heat-sensitive explosive peroxides on contact with air. When heated to decomposition it emits acrid smoke and fumes. See also ETHERS and ALDEHYDES.

**AAG250** CAS:75-07-0 **HR: 3**

**ACETALDEHYDE**

DOT: UN 1089

mf: C<sub>2</sub>H<sub>4</sub>O mw: 44.06

PROP: Colorless, fuming liquid; pungent, fruity odor. Mp: -123.5°, bp: 20.8°, lel: 4.0%, uel: 57%, flash p: -36°F (CC), d: 0.804 @ 0°/20°, autoign temp: 347°F, vap d: 1.52. Misc in water, alc, and ether.

SYNS: ACETALDEHYD (GERMAN) ◇ ACETIC ALDEHYDE ◇ ALDEHYDE ACETIQUE (FRENCH) ◇ ALDEIDE ACETICA (ITALIAN)  
 ◇ ETHANAL ◇ ETHYL ALDEHYDE ◇ FEMA No. 2003 ◇ NCI-C56326  
 ◇ OCTOWY ALDEHYD (POLISH) ◇ RCRA WASTE NUMBER U001

**TOXICITY DATA with REFERENCE**

eye-hmn 50 ppm/15M JIHTAB 28,262,46

skn-rbt 500 mg open MLD UCDS\*\* 12/13/63

eye-rbt 40 mg SEV UCDS\*\* 12/13/63

mma-sat 10 µL/plate EVHPAZ 21,79,77

dnr-esc 10 µL/plate EVHPAZ 21,79,77

sce-hmn:lym 20 ppm/48H MUREAV 58,115,78

ipr-rat TDLo:300 mg/kg (female 8-13D post):REP

TJADAB 36,31A,87

ipr-rat TDLo:50 mg/kg (12D preg):TER DADEV 9,339,82

ihl-rat TCLo:735 ppm/6H/2Y-I:CAR TXCYAC 41,213,86

ihl-ham TCLo:2040 ppm/7H/52W-I:ETA EJCAAH

18,13,82

ihl-hmn TCLo:134 ppm/30M:PUL JAMAAP 165,1908,57

orl-rat LD50:661 mg/kg AGACBH 4,125,74

ihl-rat LC50:37 g/m<sup>3</sup>/30M APTOA6 6,299,50

ipr-rat LDLo:500 mg/kg JBCHA3 152,41,44

ihl-mus LC50:1500 ppm/4H DTLVS\* 4,3,80

scu-rat LD50:640 mg/kg APTOA6 6,299,50

scu-mus LD50:560 mg/kg APTOA6 6,299,50

ivn-mus LD50:212 mg/kg JOANAY 128,65,79

ihl-ham LC50:17000 ppm/4H PEXTAR 24,162,79

itr-ham LD50:96 mg/kg PEXTAR 24,162,79

**CONSENSUS REPORTS:** IARC Cancer Review: Group 2B IMEMDT 7,77,87; Animal Sufficient Evidence IMEMDT 36,101,85; Human Inadequate Evidence IMEMDT 36,101,85. On Community Right-To-Know List. Reported in EPA TSCA Inventory. EPA Genetic Toxicology Program.

**AAG500 ACETALDEHYDE AMMONIA**

6

OSHA PEL: (Transitional: TWA 200 ppm) TWA 100 ppm; STEL 150 ppm

ACGIH TLV: TWA 100 ppm; STEL 150 ppm

DFG MAK: 50 ppm (90 mg/m<sup>3</sup>), Suspected Carcinogen.

DOT Classification: Flammable Liquid; Label: Flammable Liquid

**SAFETY PROFILE:** Suspected carcinogen with experimental carcinogenic and tumorigenic data. Poison by intratracheal and intravenous routes. A human systemic irritant by inhalation. An experimental teratogen. Other experimental reproductive effects. A skin and severe eye irritant. A narcotic. Human mutation data reported. A common air contaminant. Highly flammable liquid. Mixtures of 30-60 percent of the vapor in air ignite above 100°. It can react violently with acid anhydrides, alcohols, ketones, phenols, NH<sub>3</sub>, HCN, H<sub>2</sub>S, halogens, P, isocyanates, strong alkalies, and amines. Reactions with cobalt chloride, mercury(II) chlorate, or mercury(II) perchlorate form sensitive, explosive products. Polymerizes violently in the presence of traces of metals or acids. Reaction with oxygen may lead to detonation. When heated to decomposition it emits acrid smoke and fumes.

**AAG500**                    CAS:75-39-8                    **HR: 2**  
**ACETALDEHYDE AMMONIA**

DOT: UN 1841

mf: C<sub>2</sub>H<sub>4</sub>O•H<sub>3</sub>N      mw: 61.10

**PROP:** White, crystalline solid. Bp: 110°, mp: 97°. Very sol in water, alc; sltly sol in ether.

**SYNS:** ACETALDEHYDE, AMINE SALT ◇ ALDEHYDE AMMONIA  
◇ 1-AMINOETHANOL ◇ α-AMINOETHYL ALCOHOL

DOT Classification: ORM-A; Label: None.

**SAFETY PROFILE:** It readily decomposes into acetaldehyde and ammonia when heated, causing the hazards of these substances. Moderate fire and explosion hazard when exposed to heat or flame. Can react with oxidizing materials. When heated to decomposition it emits toxic fumes of NH<sub>3</sub> and NO<sub>x</sub>.

**AAG750**                    CAS:10143-67-6                    **HR: 2**  
**ACETALDEHYDE BIS(2-METHOXYETHYL ACETAL**

mf: C<sub>8</sub>H<sub>18</sub>O<sub>4</sub>      mw: 178.26

**SYN:** 1,1-DI-(2-METHOXYETHOXY)ETHANE

**TOXICITY DATA with REFERENCE**

eye-rbt 500 mg open AMIHBC 10,61,54

orl-rat LD50:3260 mg/kg AMIHBC 10,61,54

skn-rbt LD50:4240 mg/kg AMIHBC 10,61,54

**SAFETY PROFILE:** Moderately toxic by ingestion. Mildly toxic by skin contact. An eye irritant. When

heated to decomposition it emits acrid smoke and fumes. See also ALDEHYDES.

**AAG850**                    CAS:105-82-8                    **HR: 1**  
**ACETALDEHYDE-DI-n-PROPYL ACETAL**  
 mf: C<sub>8</sub>H<sub>18</sub>O<sub>2</sub>      mw: 146.26

**SYNS:** ACETALDEHYDE, DIPROPYL ACETAL ◇ 1,1-DIPOPOXYETHANE ◇ DIPROPYL ACETAL ◇ n-PROPYL ACETAL

**TOXICITY DATA with REFERENCE**  
 skn-rbt 500 mg/24H MOD FCTXAV 17,897,79

**CONSENSUS REPORTS:** Reported in EPA TSCA Inventory.

**SAFETY PROFILE:** A skin irritant. When heated to decomposition it emits acrid smoke and irritating fumes.

**AAH000**                    CAS:16568-02-8                    **HR: 3**  
**ACETALDEHYDE-N-METHYL-N-FORMYLHYDRAZONE**  
 mf: C<sub>4</sub>H<sub>8</sub>N<sub>2</sub>O      mw: 100.14

**SYNS:** ACETALDEHYDE-N-FORMYL-N-METHYLHYDRAZONE ◇ ETHYLDENE GYROMITRIN ◇ GYROMITRIN ◇ N-METHYL-N-FORMYL HYDRAZONE of ACETALDEHYDE

**TOXICITY DATA with REFERENCE**  
 scu-mus TDLo:600 mg/kg/12W-I:CAR NEOLA4  
28,559,81  
 orl-mus TD:5200 mg/kg/52W-I:ETA FEPRA7

39(3,Pt.2),884,80  
 unk-chd LDLo:10 mg/kg MGLHAE 65,453,74  
 unk-hmn LDLo:20 mg/kg MGLHAE 65,453,74  
 orl-rat LD50:320 mg/kg FCTXAV 15,575,77  
 orl-mus LD50:344 mg/kg MUREAV 54,167,78  
 orl-rbt LD50:50 mg/kg NATWAY 62,395,75

**CONSENSUS REPORTS:** IARC Cancer Review: Group 3 IMEMDT 7,56,87; Animal Limited Evidence IMEMDT 7,391,87. EPA Genetic Toxicology Program.

**SAFETY PROFILE:** Poison via ingestion and possibly other routes. Questionable carcinogen with experimental carcinogenic and tumorigenic data. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>.

**AAH100**                    CAS:17167-73-6                    **HR: 2**  
**ACETALDEHYDE METHYLHYDRAZONE**  
 mf: C<sub>3</sub>H<sub>8</sub>N<sub>2</sub>      mw: 72.13

**SYNS:** ACETALDEHYDE, N-METHYLHYDRAZONE ◇ AMFH

**TOXICITY DATA with REFERENCE**

orl-mus TDLo:208 mg/kg/1Y-I:ETA JJIND8 67,881,81

orl-mus LD50:390 mg/kg TXAPA9 45,429,78

**SAFETY PROFILE:** Poison by ingestion. Questionable carcinogen with experimental tumorigenic data. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>.

**AAH250** CAS:107-29-9

**ACETALDEHYDE OXIME**

DOT: UN 2332

mf: C<sub>2</sub>H<sub>5</sub>NO mw: 59.08

PROP: A water-sol, crystalline material; sol in alc, ether. Mp: ( $\alpha$ ) 46.5°, mp: ( $\beta$ ) 12°, d: 0.966, bp: 114.5°, flash p: ≤ 72°F.

SYNS: ACETALDOXIME ◇ ALDOXIME ◇ ETHANAL OXIME  
◇ ETHYLIDENEHYDROXYLAMINE ◇ USAF AM-5

**TOXICITY DATA with REFERENCE**

ipr-mus LD50:100 mg/kg NTIS\*\* AD277-689

unk-mus LD50:1150 mg/kg PCJOAU 12,227,78

CONSENSUS REPORTS: Reported in EPA TSCA Inventory.

DOT Classification: Flammable Liquid; Label: Flammable Liquid

SAFETY PROFILE: Poison via intraperitoneal route. A dangerous fire hazard with a flash point at room temperature. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>. See also ALDEHYDES.

**AAH500** CAS:918-04-7

**HR: 2**

**ACETALDEHYDE SODIUM SULFITE**

mf: C<sub>2</sub>H<sub>5</sub>O<sub>2</sub>SO<sub>2</sub>Na•1/2H<sub>2</sub>O mw: 166.2

PROP: White crystals decomp by acid; sol in water; insol in alc.

SYNS: ACETALDEHYDE SODIUM BISULFITE

◇ AZETALDEHYDSCHWEFLIGSAUREN Natriums (GERMAN)

◇ SODIUM-1-HYDROXYETHANESULFONATE

**TOXICITY DATA with REFERENCE**

orl-rbt TDLo:1220 mg(SO<sub>2</sub>)/kg AHYGAJ 57,87,06

CONSENSUS REPORTS: Reported in EPA TSCA Inventory.

SAFETY PROFILE: Moderately toxic by ingestion based upon SO<sub>2</sub> content. When heated to decomposition it emits toxic fumes of SO<sub>x</sub> and Na<sub>2</sub>O. See also ALDEHYDES and SULFITES.

**AAH750** CAS:107-89-1

**HR: 3**

**ACETALDOL**

DOT: UN 2839

mf: C<sub>4</sub>H<sub>8</sub>O<sub>2</sub> mw: 88.12

PROP: Clear, white-to-yellow syrupy liquid. Bp: 83° @ 20 mm, flash p: 150°F (OC), d: 1.11, autoign temp: 482°F, vap d: 3.04.

SYNS: ALDOL ◇ 3-BUTANOLAL ◇ 3-HYDROXYBUTANA  
◇  $\beta$ -HYDROXYBUTYRALDEHYDE ◇ 3-HYDROXYBUTYRALDEHYDE  
◇ OXYBUTANAL ◇ OXYBUTYRIC ALDEHYDE

**TOXICITY DATA with REFERENCE**

skn-rbt 10 mg/24H MLD JIHTAB 31,60,49

skn-rbt 10 mg/24H open MLD AIHAAP 23,95,62

eye-rbt 100 mg MLD UCDS\*\* 4/21/67

orl-rat LD50:2180 mg/kg JIHTAB 31,60,49

skn-rbt LD50:140 mg/kg UCDS\*\* 4/21/67

CONSENSUS REPORTS: Reported in EPA TSCA Inventory.

DOT Classification: Poison B; Label: Poison.

SAFETY PROFILE: Poison via skin contact. Moderately toxic by ingestion. A skin and eye irritant. Moderate fire hazard when exposed to heat or flame; emits crotonaldehyde and water when heated. See CROTONALDEHYDE. Can react with oxidizing materials.

**AAI000** CAS:60-35-5

**HR: 3**

**ACETAMIDE**

mf: C<sub>2</sub>H<sub>5</sub>NO mw: 59.08

PROP: Colorless crystals; mousey odor. Mp: 81°, bp: 221.2°, d: 1.159 @ 20°/4°, vap press: 1 mm @ 65°. Decomp in hot water.

SYNS: ACETIC ACID AMIDE ◇ ACETIMIDIC ACID ◇ AMID KYSELINY OCTOVE ◇ ETHANAMIDE ◇ METHANE CARBOXAMIDE ◇ NCI-C02108

**TOXICITY DATA with REFERENCE**

oms-mus/ast 10 ppm IDZAAW 51,53,76

otr-ham:emb 1 mg/L IJCNAW 19,642,77

orl-rbt TDLo:13 g/kg (6-18D post):TER ARZNAD 30,1557,80

orl-rbt TDLo:39 g/kg (6-18D post):REP ARZNAD 30,1557,80

orl-rat TDLo:431 g/kg/1Y-C:CAR JEPTDQ 3(5-6),149,80

orl-mus TDLo:517 g/kg/1Y-C:CAR JEPTDQ 3(5-6),149,80

orl-rat TD:546 g/kg/52W-C:NEO TXAPA9 14,163,69

orl-rat LD50:7000 mg/kg JRPFA4 4,219,62

ipr-rat LD50:10300 mg/kg ARZNAD 20,1242,70

scu-rat LD50:10 g/kg OYYAA2 4,451,70

ivn-rat LD50:12500 mg/kg NYKZAU 64(1),42S,68

unr-rat LD50:2300 mg/kg ARZNAD 18,645,68

orl-mus LD50:12900 mg/kg NYKZAU 64(1),42S,68

ipr-mus LD50:1000 mg/kg JJIND8 62,911,79

scu-mus LD50:8300 mg/kg OYYAA2 4,451,70

ivn-mus LD50:10 g/kg NYKZAU 64(1),42S,68

ivn-rbt LD50:7500 mg/kg NYKZAU 64(1),42S,68

ivn-ckn LDLo:33410 mg/kg ARZNAD 20,1242,70

CONSENSUS REPORTS: IARC Cancer Review: Group 2B IMEMDT 7,56,87; Animal Sufficient Evidence IMEMDT 7,389,87. On Community Right-To-Know List. Reported in EPA TSCA Inventory.

DFG MAK: Suspected Carcinogen.

**SAFETY PROFILE:** Suspected carcinogen with experimental carcinogenic neoplasticigenic data. Moderately toxic by intraperitoneal and possibly other routes. An experimental teratogen. Other experimental reproductive effects. Mutation data reported. See also AMIDES. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>.

**AAI100** CAS:103416-59-7 **HR: 2**  
**ACETAMIDE, 2-(DIETHYLAMINO)-N-(1,3-DIMETHYL-4-(o-FLUOROBENZOYL)-5-PYRAZOLYL), MONOHYDROCHLORIDE**  
 mf: C<sub>18</sub>H<sub>23</sub>FN<sub>4</sub>O<sub>2</sub>•ClH mw: 382.91

SYN: 2-(DIETHYLAMINO)-N-(1,3-DIMETHYL-4-(o-FLUOROBENZOYL)-5-PYRAZOLYL)ACETAMIDE HYDROCHLORIDE  
 ◇ 2-(DIETHYLAMINO)-N-(4-(2-FLUOROBENZOYL)-1,3-DIMETHYL-1H-PYRAZOL-5-YL)ACE TAMIDE HYDROCHLORIDE ◇ PD 109394

#### TOXICITY DATA with REFERENCE

mma-sat 1 μmol/plate CRNGDP 7,2019,86  
 orl-rat TD:4550 mg/kg/13W-C:ETA AJPAA4 124,392,86

**SAFETY PROFILE:** Questionable carcinogen with experimental tumorigenic data. Mutation data reported. When heated to decomposition it emits toxic fumes of F<sup>-</sup>, NO<sub>x</sub>, and HCl.

**AAI125** CAS:85723-21-3 **HR: 2**  
**ACETAMIDE, N-(4-(2-FLUOROBENZOYL)-1,3-DIMETHYL-1H-PYRAZOL-5-YL)-2-((3-(2-METHYL-1-PIPERIDINYL)PROPYL)AMINO)-(Z)-2-BUTENEDIOATE (1:2)**  
 mf: C<sub>23</sub>H<sub>32</sub>FN<sub>5</sub>O<sub>2</sub> mw: 429.60

#### TOXICITY DATA with REFERENCE

orl-rat TD:4550 mg/kg/13W-C:ETA AJPAA4 124,392,86

**SAFETY PROFILE:** Questionable carcinogen with experimental tumorigenic data. When heated to decomposition it emits toxic fumes of NO<sub>x</sub>.

**AAI250** CAS:59-66-5 **HR: 3**  
**5-ACETAMIDE-1,3,4-THIADIAZOLE-2-SULFONAMIDE**  
 mf: C<sub>4</sub>H<sub>6</sub>N<sub>4</sub>O<sub>3</sub>S<sub>2</sub> mw: 222.26

SYNS: 2-ACETAMIDO-5-SULFONAMIDO-1,3,4-THIADIAZOLE  
 ◇ ACETAMIDOTHIADIAZOLESULFONAMIDE ◇ ACETAMOX  
 ◇ ACETAZOLAMID ◇ ACETAZOLAMIDE ◇ ACETAZOLEAMIDE  
 ◇ ACETOZALAMIDE ◇ 2-ACETYLAMINO-1,3,4-THIADIAZOLE-5-SULFONAMIDE ◇ N-(5-(AMINOSULFONYL)-1,3,4-THIADIAZOL-2-YL)ACETAMIDE ◇ CARBONIC ANHYDRASE INHIBITOR NO. 6063  
 ◇ CIDAMEX ◇ DEFILTRAN ◇ DEHYDRATIN ◇ DIACARB  
 ◇ DIAKARB ◇ DIAMOX ◇ DIDOC ◇ DILURAN ◇ DIURAMID  
 ◇ DIURETICUM-HOLZINGER ◇ DIUTAZOL ◇ DONMOX ◇ EDEMOX  
 ◇ EUMICTON ◇ FONURIT ◇ GLAUPAX ◇ GLUPAX ◇ MUIRAMID  
 ◇ NATRIONEX ◇ NEPHRAMIDE ◇ PHONURIT ◇ N-(5-SULFAMOYL-1,3,4-THIADIAZOL-2-YL)ACETAMIDE ◇ VETAMOX

**TOXICITY DATA with REFERENCE**  
 orl-mus TDLo:10 g/kg (female 8-12D post):REP

TCMUD8 6,361,86

orl-rat TDLo:3300 mg/kg (1-22D preg):TER TJADAB  
 1,51,68

orl-man TDLo:54 mg/kg/5D-I:PUL AIMDAP 143,1278,83  
 ipr-rat LD50:2750 mg/kg NYKZAU 56(4),134S,60  
 orl-mus LD50:4300 mg/kg ABMGAJ 21,193,68  
 ipr-mus LD50:1175 mg/kg RPTOAN 39,255,76  
 scu-mus LD50:3 mg/kg DRUGAY 6,15,82  
 ivn-mus LD50:3 mg/kg DRUGAY 6,15,82

**CONSENSUS REPORTS:** Reported in EPA TSCA Inventory.

**SAFETY PROFILE:** Poison by subcutaneous and intravenous routes. Moderately toxic by intraperitoneal route. Human systemic effects by ingestion: dyspnea. An experimental teratogen by many routes. Other experimental reproductive effects. When heated to decomposition it emits very toxic fumes of NO<sub>x</sub> and SO<sub>x</sub>. A carbonic anhydrase inhibitor and diuretic used to treat glaucoma.

**AAI500** **HR: 2**  
**ACETAMIDINE HYDROCHLORIDE**  
 mf: C<sub>2</sub>H<sub>6</sub>N<sub>2</sub>•HCl mw: 94.6

PROP: Long, somewhat deliquescent prisms when crystallized from ethanol. Mp: 164°, sol in water and alcs.

SYNS: α-AMINO-o-IMINOETHANE HYDROCHLORIDE  
 ◇ ETHANAMIDINE HYDROCHLORIDE

**SAFETY PROFILE:** Moderately toxic irritant. When heated to decomposition it emits toxic fumes of Cl<sup>-</sup> and NO<sub>x</sub>.

**AAI750** CAS:440-58-4 **HR: 1**  
**3-ACETAMIDO-5-(ACETAMIDOMETHYL)-2,4,6-TRIODOBENZOIC ACID**

mf: C<sub>12</sub>H<sub>11</sub>I<sub>3</sub>N<sub>2</sub>O<sub>4</sub> mw: 627.95

SYNS: 3-(ACETYLAMINO)-5-((ACETYLAMINO)METHYL)-2,4,6-TRIODOBENZOIC ACID ◇ AMET (GERMAN) ◇ AMETRIODINIC ACID ◇ B-4130 ◇ α-5-DIACETAMIDO-2,4,6-TRIODO-m-TOLIC ACID ◇ IODAMIDE ◇ JODAMID (GERMAN) ◇ JODOMIRON ◇ SH 926 ◇ UROMIRO ◇ UROMIRON

#### TOXICITY DATA with REFERENCE

ipr-rat LD50:17900 mg/kg ARZNAD 15,222,65

ivn-rat LD50:11400 mg/kg ARZNAD 15,222,65

ivn-mus LD50:10800 mg/kg MEIEDD 10,725,83

ivn-rbt LD50:13200 mg/kg ARZNAD 15,222,65

ipr-gpg LD50:15 g/kg ARZNAD 15,222,65

**SAFETY PROFILE:** Mildly toxic by intraperitoneal and intravenous routes. When heated to decomposition it emits very toxic fumes of NO<sub>x</sub> and HI.