Section 1 - Product and Company Information

Product Name: 4-DIMETHYLAMINOANTIPYRINE FREE BASE
Product Number: D8015
Brand: SIGMA
Company: Sigma-Aldrich Canada, Ltd
Address: 2149 Winston Park Drive
Oakville ON L6H 6J8 CA
Technical Phone: 9058299500
Fax: 9058299292
Emergency Phone: 800-424-9300

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-(DIMETHYLAMINO)ANTIPYRINE</td>
<td>58-15-1</td>
<td>No</td>
</tr>
</tbody>
</table>

Formula: C13H17N3O
Synonyms:
- Amidazophen
- Amidazophene
- Amidofebrin
- Amidofen
- Amidophen
- Amidophenazon
- Amidopyrazoline
- Amidopyrin
- Amidopyrine
- Aminofenazon (Italian)
- Aminophenazon (German)
- Aminophenazone
- Aminopyrine
- Anafebrina
- Brufaneuxol
- Dereuma
- Dimapyrin
- Dimethylaminoo-analgesine
- Dimethylaminooantipyrine
- 4-(Dimethylaminoo)antipyrine
- Dimethylaminooazophene
- 4-Dimethylaminoo-2,3-dimethyl-1-phenyl-3-pyrazolino-5-one
- 4-Dimethylaminoo-2,3-dimethyl-1-phenyl-5-pyrazolino
- Dimethylaminophenazon (German)
- Dimethylaminophenazon (German)
- Dimethylaminophenylidimethylpyrazolin
- 4-Dimethylaminoo-1-phenyl-2,3-dimethylpyrazolone
- 1,5-Dimethylaminoo-4-dimethylaminoo-2-phenyl-3-pyrazolino
- 2,3-Dimethylaminoo-4-dimethylaminoo-1-phenyl-5-pyrazolino
- Dipirin
- Dipyrin
- Dipyrine
- Febrinina
- Febron
- Itamidone
- 3-Keto-1,5-dimethylaminoo-4-dimethylaminoo-2-phenyl-2,3-dihydropyrazolone
- Mamallet-A
- Netsusarin
- Novamidon
- 1-Phenyl-2,3-dimethyl-4-dimethylaminopyrazol-5-one
- 1-Phenyl-2,3-dimethyl-4-dimethylaminopyrazolone-5
- Piramidon
- Piridol
- Piromidina
- Polinalin
- Pyradone
- Pyramidon
- Pyramidone
- 3H-Pyrazol-3-one
- 4-(Dimethylaminoo)-1,2-dihydro-1,5-dimethyl-2-phenyl-1-(9CI)
- 3-Pyrazolino-5-one
- 4-(Dimethylaminoo)-2,3-dimethyl-1-phenyl-
Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Toxic (USA) Harmful (EU).
Harmful if swallowed. Irritating to eyes, respiratory system and skin.
Target organ(s): Blood. Bone marrow.

HMIS RATING
HEALTH: 2*
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING
HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
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

HANDLING
User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed.

SPECIAL REQUIREMENTS
Light sensitive.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Mechanical exhaust required. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>231.3 AMU</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>BP/BP Range</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>107.0 - 109.0 °C</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>SG/Density</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions to Avoid: Exposure to light may affect product quality.
Materials to Avoid: Strong oxidizing agents, Strong acids, Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)
Blood. Bone marrow.

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

CONDITIONS AGGRAVATED BY EXPOSURE
Agranulocytosis may occur. Can produce potentially fatal bone-marrow toxicity.

TOXICITY DATA
Oral Oral
Rat Rat
285 mg/kg 285 mg/kg
LD50 LD50

**Intraperitoneal Intraperitoneal**
Rat Rat
190 MG/KG 190 MG/KG
LD50 LD50

**Subcutaneous Subcutaneous**
Rat Rat
295 MG/KG 295 MG/KG
LD50 LD50

**Intravenous Intravenous**
Rat Rat
98 MG/KG 98 MG/KG
LD50 LD50

**Intramuscular Intramuscular**
Rat Rat
340 MG/KG 340 MG/KG
LD50 LD50

**Rectal Rectal**
Rat Rat
310 MG/KG 310 MG/KG
LD50 LD50

**Oral Oral**
Mouse Mouse
350 mg/kg 300 mg/kg
LD50 LD50

**Inhalation Inhalation**
Mouse Mouse
20,410 mg/m3 20,410 mg/m3
LC50 LC50

**Intraperitoneal Intraperitoneal**
Mouse Mouse
169 MG/KG 169 MG/KG
LD50 LD50

**Subcutaneous Subcutaneous**
Mouse Mouse
248 MG/KG 248 MG/KG
LD50 LD50

**Intravenous Intravenous**
Mouse Mouse
78 MG/KG 78 MG/KG
LD50 LD50

Intramuscular Intramuscular
Mouse Mouse
306 MG/KG 306 MG/KG
LD50 LD50

Oral Oral
Dog Dog
220 mg/kg 220 mg/kg
LD50 LD50

Intravenous Intravenous
Dog Dog
121 MG/KG 121 MG/KG
LD50 LD50

Oral Oral
Rabbit Rabbit
600 mg/kg 600 mg/kg
LD50 LD50

Intravenous Intravenous
Rabbit Rabbit
80 MG/KG 80 MG/KG
LD50 LD50

Oral Oral
Guinea pig Guinea pig
910 mg/kg 910 mg/kg
LD50 LD50

Intravenous Intravenous
Guinea pig Guinea pig
130 MG/KG 130 MG/KG
LD50 LD50
Remarks: Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Other changes. Lungs, Thorax, or Respiration:Other changes. Behavioral:Convulsions or effect on seizure threshold.

Intraperitoneal Intraperitoneal
Hamster Hamster
380 MG/KG 380 MG/KG
LD50 LD50

Intraperitoneal Intraperitoneal
Mammal Mammal
CHRONIC EXPOSURE - CARCINOGEN

Species: Rat Rat
Route of Application: Oral Oral
Dose: 4200 MG/KG 4200 MG/KG
Exposure Time: 2.5Y 2.5Y
Frequency: C C

CHRONIC EXPOSURE - TERATOGEN

Species: Rat Rat
Dose: 60 MG/KG 60 MG/KG
Route of Application: Oral Oral
Exposure Time: (9-14D PREG) (9-14D PREG)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4). Specific Developmental Abnormalities: Musculoskeletal system. Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4). Specific Developmental Abnormalities: Musculoskeletal system.

Species: Rat Rat
Dose: 900 MG/KG 900 MG/KG
Route of Application: Oral Oral
Exposure Time: (9-14D PREG) (9-14D PREG)
Result: Specific Developmental Abnormalities: Urogenital system. Effects on Embryo or Fetus: Fetal toxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Urogenital system. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Mouse Mouse
Dose: 60 MG/KG 60 MG/KG
Route of Application: Oral Oral
Exposure Time: (7-12D PREG) (7-12D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Musculoskeletal system.

Species: Mouse Mouse
Dose: 630 MG/KG 630 MG/KG
Route of Application: Subcutaneous Subcutaneous
Exposure Time: (9-11D PREG) (9-11D PREG)

Species: Mouse Mouse
Dose: 630 MG/KG 630 MG/KG
Route of Application: Subcutaneous Subcutaneous
Exposure Time: (9-11D PREG) (9-11D PREG)
Species: Mouse  Mouse  
Dose: 630 MG/KG  630 MG/KG  
Route of Application: Subcutaneous  Subcutaneous  
Exposure Time: (9-11D PREG)  (9-11D PREG)  

CHRONIC EXPOSURE - MUTAGEN

Species: Rat  Rat  
Route: Oral  Oral  
Dose: 2520 MG/KG  2520 MG/KG  
Exposure Time: 6W  6W  
Mutation test: Morphological transformation. Morphological transformation.

Species: Mouse  Mouse  
Dose: 100 MG/L  100 MG/L  
Cell Type: Other cell types  Other cell types  
Mutation test: DNA inhibition  DNA inhibition

Species: Hamster  Hamster  
Route: Oral  Oral  
Dose: 100 MG/KG  100 MG/KG  
Mutation test: Morphological transformation. Morphological transformation.

Species: Hamster  Hamster  
Dose: 3 MMOL/L  3 MMOL/L  
Cell Type: fibroblast  fibroblast  
Mutation test: Cytogenetic analysis  Cytogenetic analysis

Species: Hamster  Hamster  
Route: Oral  Oral  
Dose: 100 MG/KG  100 MG/KG  
Mutation test: Mutation in mammalian somatic cells. Mutation in mammalian somatic cells.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Mouse  Mouse  
Dose: 900 MG/KG  900 MG/KG  
Route of Application: Oral  Oral  
Exposure Time: (7-12D PREG)  (7-12D PREG)  
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Species: Mouse  Mouse  
Dose: 600 MG/KG  600 MG/KG  
Route of Application: Subcutaneous  Subcutaneous  
Exposure Time: (7-9D PREG)  (7-9D PREG)  
Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Specific Developmental Abnormalities: Body wall. Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Body wall. Effects on Fertility:
Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. 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

DOT
Proper Shipping Name: Toxic solids, organic, n.o.s.
UN#: 2811
Class: 6.1
Packing Group: Packing Group III
Hazard Label: Toxic substances.
PIH: Not PIH

IATA
Proper Shipping Name: Toxic solid, organic, n.o.s.
IATA UN Number: 2811
Hazard Class: 6.1
Packing Group: III

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 22-36/37/38
Risk Statements: Harmful if swallowed. Irritating to eyes, respiratory system and skin.
S: 26-36
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Toxic (USA) Harmful (EU).
Risk Statements: Harmful if swallowed. Irritating to eyes, respiratory system and skin.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.
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