

4-DIMETHYLAMINO ANTIPYRINE

GHS Safety Data Sheet

Version No:2.0

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

4-DIMETHYLAMINO ANTIPYRINE

OTHER NAMES

Aminophenazone, C₁₃H₁₇N₃O, "antipyrene, 4-(dimethylamino)-", "antipyrene, 4-(dimethylamino)-", dimethylaminoantipyrene, 4-(dimethylamino)antipyrene, 4-(dimethylamino)antipyrene, dimethylaminoazophene, "4-dimethylamino-2, 3-dimethyl-1-phenyl-3-pyrazolin-5-one", "4-dimethylamino-2, 3-dimethyl-1-phenyl-3-pyrazolin-5-one", "4-dimethylamino-2, 3-dimethyl-1-phenyl-5-pyrolazone", "4-dimethylamino-2, 3-dimethyl-1-phenyl-5-pyrolazone", dimethylaminophenazone, 4-dimethylaminophenazone, 4-dimethylaminophenazone, dimethylaminophenyldimethylpyrazolin, "4-dimethylamino-1-phenyl-2, 3-dimethylpyrazolone", "4-dimethylamino-1-phenyl-2, 3-dimethylpyrazolone", "1, 5-dimethyl-4-dimethylamino-2-phenyl-3-pyrazolone", "1, 5-dimethyl-4-dimethylamino-2-phenyl-3-pyrazolone", "2, 3-dimethyl-4-dimethylamino-1-phenyl-5-pyrazolone", "2, 3-dimethyl-4-dimethylamino-1-phenyl-5-pyrazolone", "3-keto-1, 5-dimethyl-4-dimethylamino-2-phenyl-2, 3-dihydropyrazole", "3-keto-1, 5-dimethyl-4-dimethylamino-2-phenyl-2, 3-dihydropyrazole", "1-phenyl-2, 3-dimethyl-4-dimethylaminopyrazol-5-one", "1-phenyl-2, 3-dimethyl-4-dimethylaminopyrazol-5-one", "4-dimethylamino-1,5-dimethyl-2-phenylpyrazol-3-one"

PROPER SHIPPING NAME

MEDICINE, SOLID, TOXIC, N.O.S.

PRODUCT USE

Analytical reagent

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

technical@sdfine.com

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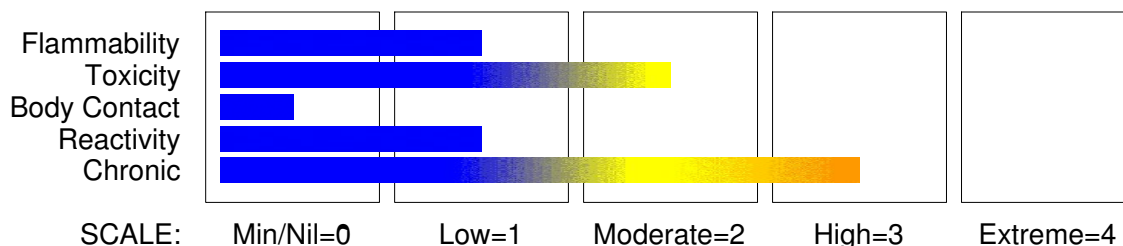
Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS



Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Oral) Category 3

Reproductive Toxicity Category 1B



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H301 H360

Toxic if swallowed

May damage the unborn child

PRECAUTIONARY STATEMENTS

Prevention

Use personal protective equipment as required.

Do not handle until all safety precautions have been read and understood.

Obtain special instructions before use.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Response

If exposed or concerned: Get medical attention advice.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Specific treatment: refer to Label or MSDS.

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Section 2 - HAZARDS IDENTIFICATION

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
4-dimethylamino antipyrine	58-15-1	>98

Section 4 - FIRST AID MEASURES

SWALLOWED

- IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
 - For advice, contact a Poisons Information Centre or a doctor.
 - Urgent hospital treatment is likely to be needed.
 - In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.
 - If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist.
 - If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.
 - Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:
 - INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- NOTE: Wear a protective glove when inducing vomiting by mechanical means.
Poison Information Centres in each State capital city can provide additional assistance.

EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
 - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
 - If pain persists or recurs seek medical attention.
 - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
 - Flush skin and hair with running water (and soap if available).
 - Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where

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Section 4 - FIRST AID MEASURES

possible, prior to initiating first aid procedures.

- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Solid which exhibits difficult combustion or is difficult to ignite.
- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust may burn rapidly and fiercely if ignited.
- Dry dust can also be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport.
- Build-up of electrostatic charge may be prevented by bonding and grounding.
- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.
- All movable parts coming in contact with this material should have a speed of less than 1-metre/sec.

Combustion products include: carbon monoxide (CO) and nitrogen oxides (NO_x).

FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Personal Protective Equipment

Breathing apparatus.
Gas tight chemical resistant suit.
Limit exposure duration to 1 BA set 30 mins.

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Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety glasses.
- Use dry clean up procedures and avoid generating dust.
- Sweep up or
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place spilled material in clean, dry, sealable, labelled container.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+: May be stored together

O: May be stored together with specific precautions

X: Must not be stored together

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing dust
- Avoid contact with skin and eyes.
- Wear nominated personal protective equipment when handling.
- Use in a well-ventilated area.
- Use good occupational work practices.

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Section 7 - HANDLING AND STORAGE

- Observe manufacturer's storing and handling recommendations.

SUITABLE CONTAINER

- Packaging as recommended by manufacturer.
- Check that containers are clearly labelled.
- Tamper-proof containers.
- Polyethylene or polypropylene containers.
- Metal drum with sealed plastic liner.

STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents.
Avoid strong acids.
Avoid exposure to light and air.

STORAGE REQUIREMENTS

Observe manufacturer's storing and handling recommendations.
Store in a cool area and away from sunlight.
Store in a well-ventilated area.
Store away from incompatible materials.
Keep containers securely sealed.
Check regularly for spills and leaks.
Protect containers against physical damage.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- aminophenazone:

CAS:58- 15- 1 CAS:144574- 10- 7

MATERIAL DATA

OEL STEL: 0.5 mg/m³ (Russian)
CEL TWA: 0.1 mg/m³

PERSONAL PROTECTION



EYE

No special equipment needed when handling small quantities of substance.
For bulk handling wear:
Chemical goggles or
Face shield.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HANDS/FEET

Rubber gloves
PVC gloves
Protective shoe covers
Head covering.

OTHER

No special equipment when handling small quantities of substance otherwise:

Coveralls
For Emergencies:
Vinyl suit
Safety shower

RESPIRATOR

High Efficiency Dust Respirator (P2, P3)

For non-routine emergencies wear full face mask self-contained breathing apparatus.

RESPIRATOR

Protection Factor	Half- Face Respirator	Full- Face Respirator	Powered Air Respirator
10 x ES	P1 Air- line*	- -	PAPR- P1 -
50 x ES	Air- line**	P2	PAPR- P2
100 x ES	-	P3	-
		Air- line*	-
100+ x ES	-	Air- line**	PAPR- P3

* - Negative pressure demand ** - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

For further information consult
your
Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Enclosed local exhaust ventilation is required at points of dust, fume or vapour generation.

HEPA terminated local exhaust ventilation should be considered at point of generation of dust, fumes or vapours.

Barrier protection or laminar flow cabinets should be considered for laboratory scale handling.

When handling quantities up to 500 kilogram, work in either a standard laboratory with general dilution ventilation (e.g. 6-12 air changes per hour) is preferred. Quantities up to 1 kilogram may require a designated laboratory using fume hood, biological safety cabinet, or approved vented enclosures. Quantities exceeding 1 kilogram should be handled in a designated laboratory or containment laboratory using appropriate barrier/containment technology.

Manufacturing and pilot plant operations require barrier/containment and direct coupling technologies.

Barrier/containment technology and direct coupling (totally enclosed processes that create a barrier between the equipment and the room) typically use double or split butterfly valves and hybrid unidirectional airflow/ local exhaust ventilation solutions (e.g. powder containment booths). Glove bags, isolator glove box systems are optional. HEPA filtration of exhaust from dry product handling areas is required.

Fume-hoods and other open-face containment devices are acceptable when face velocities of at least 1 m/s (200 feet/minute) are achieved. Partitions, barriers, and other partial

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

containment technologies are required to prevent migration of the material to uncontrolled areas. For non-routine emergencies maximum local and general exhaust are necessary. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, etc. evaporating from tank (in still air)	0.25- 0.5 m/s (50- 100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers (released at low velocity into zone of active generation)	0.5- 1 m/s (100- 200 f/min.)
direct spray, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1- 2.5 m/s (200- 500 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2.5 m/s (200-500 f/min.) for extraction of gases discharged 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

The need for respiratory protection should also be assessed where incidental or accidental exposure is anticipated: Dependent on levels of contamination, PAPR, full face air purifying devices with P2 or P3 filters or air supplied respirators should be evaluated.

The following protective devices are recommended where exposures exceed the recommended exposure control guidelines by factors of:

10; high efficiency particulate (HEPA) filters or cartridges
10-25; loose-fitting (Tyvek or helmet type) HEPA powered-air purifying respirator.
25-50; a full face-piece negative pressure respirator with HEPA filters
50-100; tight-fitting, full face-piece HEPA PAPR
100-1000; a hood-shroud HEPA PAPR or full face-piece supplied air respirator operated in pressure demand or other positive pressure mode.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White crystalline powder with slightly bitter taste; mixes with water (1:20), alcohol (1:2), chloroform (1:1) and ether (1:13).

PHYSICAL PROPERTIES

Solid.

Mixes with water.

Molecular Weight: 231.33

Melting Range (°C): 108

Solubility in water (g/L): Miscible

pH (1% solution): 7.5- 9 (5%)

Volatile Component (%vol): Negligible

Relative Vapour Density (air=1): Not applicable

Lower Explosive Limit (%): Not available

Autoignition Temp (°C): Not available

State: Divided solid

Boiling Range (°C): Not available

Specific Gravity (water=1): Not available

pH (as supplied): Not applicable

Vapour Pressure (kPa): Negligible

Evaporation Rate: Not applicable

Flash Point (°C): Not available

Upper Explosive Limit (%): Not available

Decomposition Temp (°C): Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

Agranulocytosis, an acute condition of the blood characterised by pronounced leukopenia with a great reduction in the number of polymorphonuclear leukocytes, may result in the development of infected ulcers in the throat, intestinal tract, and other mucous membranes as well as the skin.

Pyrazolone derivatives may damage the stem cell which acts as the precursor to components of the blood and, as a result, produce blood dyscrasias. Most blood cells originate from a single pluripotent stem cell which are present in the circulating blood, but differentiates only in intact bone marrow. When the number stem cells decreases to below 10% of their normal value, pancytopenia (a reduction in the number of red and white blood cells and platelets) develops in the peripheral blood, with a latency period corresponding to the lifetime of the individual blood cells.

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Section 11 - TOXICOLOGICAL INFORMATION

Granulocytopenia (a reduction in granular leukocytes) develops within days and thrombocytopenia (a disorder involving platelets), within 1-2 weeks, whilst loss of erythrocytes (red blood cells) need months to become clinically manifest. The erythrocyte count reveals 0.8% loss per day, on average, following the complete stop of red blood cell formation. Aplastic anaemia develops due to complete destruction of the stem cells.

EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

SKIN

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

The material is not thought to be a skin irritant (i.e. is unlikely to produce irritant dermatitis as described in EC Directives using animal models). Temporary discomfort, however, may result from prolonged dermal exposures. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Open cuts, abraded or irritated skin should not be exposed to this material.

Toxic effects may result from skin absorption.

INHALED

Inhalation may produce health damage*.

The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation, of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.

Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts.

Limited evidence of a carcinogenic effect*.

May be considered a potential carcinogen because it reacts readily with nitrous acid to form dimethylnitrosamine. The reaction is catalysed by thiocyanate present in saliva, particularly that of smokers.

Chronic ingestion of excessive amounts of non-narcotic analgesics can lead to nephropathy (kidney damage) in humans. A substantial number of health deficits are associated with this condition. These include reduced GFR (glomerular filtration rate), salt wastage, hyperkalaemia, metabolic acidosis, and a vasopressin-resistant concentration defect. More severe forms of analgesic nephropathy may lead to papillary necrosis with sloughing of the papilla. Although renal function may return to normal after discontinuation of treatment or abuse, complete anuria (absence of urine formation) may result following continued abuse.

Most patients who develop analgesic nephropathy consume analgesics for up to 3 years, consuming between 2 and 5 mg daily.

TOXICITY AND IRRITATION

TOXICITY

Oral (rat) LD50: 285 mg/kg

Subcutaneous (rat) LD50: 295 mg/kg

Intravenous (rat) LD50: 98 mg/kg

IRRITATION

Nil Reported

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Section 11 - TOXICOLOGICAL INFORMATION

Intraperitoneal (rat) LD50: 2.07 mg/kg

Subcutaneous (rat) LD50: 5.46 mg/kg

Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).

Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant: Not Determined

No data for aminophenazone.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible. Special hazard may exist - specialist advice may be required.
- Consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury or incinerate residue at an approved site.
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
- Puncture containers to prevent re-use and bury at an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: TOXIC

HAZCHEM: 2X

UNDG:

Dangerous Goods Class: 6.1

UN Number: 3249

Shipping Name: MEDICINE, SOLID, TOXIC, N.O.S.

Subrisk:

None

Packing Group:

III

Air Transport IATA:

ICAO/IATA Class: 6.1

UN/ID Number: 3249

ERG Code: 6L

Shipping name: MEDICINE, SOLID, TOXIC, N.O.S.

ICAO/IATA Subrisk:

None

Packing Group:

III

Maritime Transport IMDG:

IMDG Class: 6.1

UN Number: 3249

EMS Number: F- A, S- A

Shipping name: MEDICINE, SOLID, TOXIC, N.O.S.

IMDG Subrisk:

None

Packing Group:

III

Marine Pollutant:

Not Determined

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Section 15 - REGULATORY INFORMATION

REGULATIONS

No regulations applicable

No data available for aminophenazone as CAS: 58-15-1, CAS: 144574-10-7.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
aminophenazone	58- 15- 1, 144574- 10- 7

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

Issue Date : 3 Dec 2017