

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 1 of 11

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ANILINE HYDROCHLORIDE

OTHER NAMES

C6-H7-N.Cl-H, "benzenamine, hydrochloride", "aniline chloride"
"anilinium chloride", "C.I. 76001", "hydrochloride benzenamide", "phenylamine hydrochloride"

PROPER SHIPPING NAME

ANILINE HYDROCHLORIDE

PRODUCT USE

Intermediates, dyeing and printing, aniline black.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

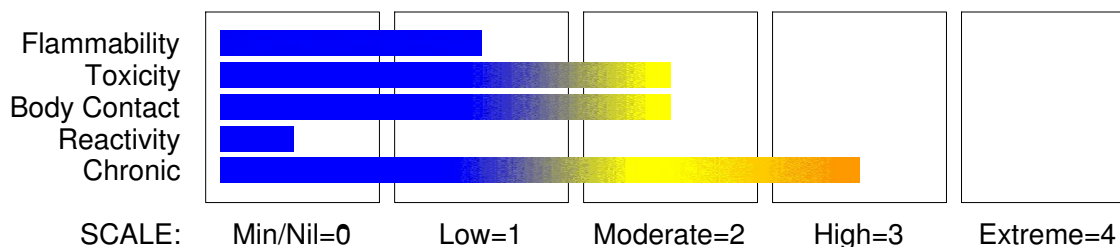
technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS



Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Oral) Category 4

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 2 of 11

Section 2 - HAZARDS IDENTIFICATION

Eye Irritation Category 2B
Reproductive Toxicity Category 1B
Skin Corrosion/Irritation Category 3
Skin Sensitizer Category 1



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H302 H316 H320 H317 H360

Harmful if swallowed

Causes mild skin irritation

Causes eye irritation

May cause allergic skin reaction

May damage the unborn child

PRECAUTIONARY STATEMENTS

Prevention

Obtain special instructions before use.

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

Contaminated clothing should not be allowed out of the workplace.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use personal protective equipment as required.

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

Wash hands thoroughly after handling.

Response

If eye irritation persists, get medical advice/attention.

If exposed or concerned: Get medical attention advice.

If skin irritation or rash occurs, seek medical advice/attention.

If skin irritation occurs, seek medical advice/attention.

IF ON SKIN: Gently wash with plenty of soap and water.

Specific treatment: refer to Label or MSDS.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Wash contaminated clothing before reuse.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 3 of 11

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
aniline hydrochloride	142-04-1	>98

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.

- For advice, contact a Poisons Information Centre or a doctor.

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 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.

- 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.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with 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.

- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

- Transport to hospital or doctor without delay.

- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin or hair contact occurs:

- Immediately flush body and clothes with large amounts of water, using safety shower if available.

- Quickly remove all contaminated clothing, including footwear.

- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.

- Transport to hospital, or doctor.

INHALED

- If inhaled, remove quickly from contaminated area.

- Prostheses such as false teeth, which may block airway, should be removed, where 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.

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 4 of 11

Section 4 - FIRST AID MEASURES

NOTES TO PHYSICIAN

The material may induce methaemoglobinaemia following exposure.

- Initial attention should be directed at oxygen delivery and assisted ventilation if necessary. Hyperbaric oxygen has not demonstrated substantial benefits.
- Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
- Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis, alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 50 minutes; repeat, using the same dose, if symptoms of hypoxia fail to subside within 1 hour.
- Thorough cleansing of the entire contaminated area of the body, including the scalp and nails, is of utmost importance.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comment
1. Methaemoglobin in blood	1.5% of haemoglobin	During or end of shift	B, NS, SQ

B: Background levels occur in specimens collected from subjects NOT exposed

NS: Non-specific determinant; also observed after exposure to other materials

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray or fog.

- Alcohol stable foam.

Dry chemical powder.

Carbon dioxide.

FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

Environmental hazard - contain spillage.

- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Decomposes on heating and produces toxic fumes of carbon monoxide (CO) and nitrogen oxides (NO_x).

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 5 of 11

Section 5 - FIRE FIGHTING MEASURES

Personal Protective Equipment

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

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

Pollutant - contain spillage.
Advise emergency services.
Clear area of personnel and move upwind.
Increase ventilation.

- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water courses.

Stop leak if safe to do so.
Contain and absorb spill with sand, earth, inert material or vermiculite.
Collect and seal in labelled drums for disposal.

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.
Keep containers securely sealed when not in use.
Avoid contact with incompatible materials.
When handling, DO NOT eat, drink or smoke.

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 6 of 11

Section 7 - HANDLING AND STORAGE

Wash hands with soap and water after handling.
Work clothes should be laundered separately: NOT at home.

SUITABLE CONTAINER

- Check that containers are clearly labelled.
- Glass container.
- Plastic container.
- Metal can.

STORAGE INCOMPATIBILITY

Store away from oxidising agents and strongly alkaline materials.

STORAGE REQUIREMENTS

- Keep containers securely sealed.
- Store in a cool area and away from sunlight.
- Store in a well-ventilated area.
- Store away from incompatible materials.
- Store away from foodstuff containers.
- Outside or detached storage is preferred.
- Protect containers against physical damage.
- Check regularly for spills and leaks.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- aniline hydrochloride: CAS:142- 04- 1

MATERIAL DATA

These "dusts" have little adverse effect on the lungs and do not produce toxic effects or organic disease. Although there is no dust which does not evoke some cellular response at sufficiently high concentrations, the cellular response caused by P.N.O.C.s has the following characteristics:

- the architecture of the air spaces remain intact,
- scar tissue (collagen) is not synthesised to any degree,
- tissue reaction is potentially reversible.

Extensive concentrations of P.N.O.C.s may:

- seriously reduce visibility,
- cause unpleasant deposits in the eyes, ears and nasal passages,
- contribute to skin or mucous membrane injury by chemical or mechanical action, per se, or by the rigorous skin cleansing procedures necessary for their removal. [ACGIH]

This limit does not apply:

- to brief exposures to higher concentrations
- nor does it apply to those substances that may cause physiological impairment at lower concentrations but for which a TLV has as yet to be determined.

This exposure standard applies to particles which

- are insoluble or poorly soluble* in water or, preferably, in aqueous lung fluid (if data is available) and
- have a low toxicity (i.e.. are not cytotoxic, genotoxic, or otherwise chemically reactive with lung tissue, and do not emit ionizing radiation, cause immune sensitization, or cause toxic effects other than by inflammation or by a mechanism of lung overload).

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 7 of 11

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION



EYE

- Chemical goggles.
 - Full face shield.
- DO NOT wear contact lenses.
- Eyewash unit.

HANDS/FEET

Butyl rubber gloves.

OTHER

- Impervious protective clothing.
- Rubber apron.
- Ensure there is ready access to a safety shower.

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

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.

An approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area. 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:
solvent, vapours, degreasing etc., evaporating
from tank (in still air).

Air Speed:
0.25- 0.5 m/s (50- 100 f/min.)

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 8 of 11

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5- 1 m/s (100- 200 f/min.)
direct spray, spray painting in shallow booths, 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.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5- 10 m/s (500- 2000 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 m/s (200-400 f/min) for extraction of solvents generated in a tank 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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Dark green crystals; mix with water. Darkens in air and light.

PHYSICAL PROPERTIES

Solid.

Mixes with water.

Molecular Weight: 129.60

Melting Range (°C): 198

Solubility in water (g/L): Miscible

pH (1% solution): Not available

Volatile Component (%vol): Negligible

Relative Vapour Density (air=1): 4.46

Lower Explosive Limit (%): Not available

Autoignition Temp (°C): Not available

State: Divided solid

Boiling Range (°C): 245

Specific Gravity (water=1): 1.22

pH (as supplied): Not applicable

Vapour Pressure (kPa): Not available

Evaporation Rate: Not available

Flash Point (°C): 193

Upper Explosive Limit (%): Not available

Decomposition Temp (°C): Not available

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 9 of 11

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of incompatible materials.
Stable under normal storage conditions.
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.

Considered an unlikely route of entry in commercial/industrial environments.

EYE

Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

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

Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

Toxic effects may result from skin absorption.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 10 of 11

Section 11 - TOXICOLOGICAL INFORMATION

may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

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.

CHRONIC HEALTH EFFECTS

There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.

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

Chronic exposure may result in anaemia, anorexia, weight loss and has been reported to produce red blood cell damage.

Kidney and liver damage has been reported in test animals exposed to the parent aniline.

WARNING! - Avoid exposure of pregnant women to this substance, it may have adverse effects on embryo or foetus (AIHA J., 1976, 423).

Preplacement and annual medical examinations with emphasis on blood (methaemoglobin), kidneys, liver, and cardiovascular system should be undertaken. Medical surveillance of aniline exposed workers should include periodic complete blood analysis.

TOXICITY AND IRRITATION

TOXICITY

Oral (rat) LD50: 840 mg/kg

Tumorigenic by RTECS criteria

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

Reproductive effector

IRRITATION

Skin (rabbit): 500mg/24h- Moderate

Eye (rabbit): 20 mg/24h- Moderate

Section 12 - ECOLOGICAL INFORMATION

ThOD: 94%

No data for aniline hydrochloride.

Section 13 - DISPOSAL CONSIDERATIONS

DO NOT discharge into sewer or waterways.

Recycle wherever possible.

Bury or incinerate residue at an approved site.

Consult State Land Waste Management Authority for disposal.

continued...

ANILINE HYDROCHLORIDE

GHS Safety Data Sheet

Version No:2.0

Page 11 of 11

Section 14 - TRANSPORTATION INFORMATION



Labels Required: TOXIC
HAZCHEM: 2Z

UNDG:

Dangerous Goods Class:	6.1	Subrisk:	None
UN Number:	1548	Packing Group:	III
Shipping Name:ANILINE HYDROCHLORIDE			

Air Transport IATA:

ICAO/IATA Class:	6.1	ICAO/IATA Subrisk:	None
UN/ID Number:	1548	Packing Group:	III
ERG Code:	6L		
Shipping name:ANILINE HYDROCHLORIDE			

Maritime Transport IMDG:

IMDG Class:	6.1	IMDG Subrisk:	None
UN Number:	1548	Packing Group:	III
EMS Number:	F- A, S- A		
Shipping name:ANILINE HYDROCHLORIDE			

Section 15 - REGULATORY INFORMATION

REGULATIONS

aniline hydrochloride (CAS: 142-04-1) is found on the following regulatory lists;
WHO Guidelines for Drinking-water Quality - Chemicals for which guideline values have not been established

Section 16 - OTHER INFORMATION

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: 28-Jun-2018