

## 4'-BROMOACETANILIDE

GHS Safety Data Sheet

Version No:4.1.1.1  
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### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT NAME

4'-BROMOACETANILIDE

#### OTHER NAMES

C8-H8-Br-N-O, CH<sub>3</sub>CONHHC<sub>6</sub>H<sub>4</sub>Br, "acetanilide, 4'-bromo-", "acetamide, N-(4-bromophenyl)-", "acetanilide, p-bromo-", p-bromoacetanilide, 4-bromoacetanilide, p-bromo-N-acetanilide, bromoanilide, Antiseptin, Asepsin, Bromoantifebrin, "USAF DO-40", analgesic, antipyretic

#### PRODUCT USE

Chemical intermediate; analgesic, antipyretic.

#### SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V.Ind.Estate,

248, Worli Road,

Mumbai- 400030, India

www.sdfine.com

Telephone: 91- 22 24959898/99

Fax: 91- 22 2493 7232

Email: technical@sdfine.com

### Section 2 - HAZARDS IDENTIFICATION

#### GHS Classification

Eye Irritation Category 2A

Skin Corrosion/Irritation Category 2

STOT - SE Category 3



#### EMERGENCY OVERVIEW

#### HAZARD

#### WARNING

Determined by using GHS criteria

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

#### PRECAUTIONARY STATEMENTS

##### Prevention

##### Code

P261

##### Phrase

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

P264

Wash ... thoroughly after handling.

P271

Use only outdoors or in a well- ventilated area.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

##### Response

##### Code

P302+P352

##### Phrase

IF ON SKIN: Wash with plenty of soap and water.

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|                      |                                                                                                                                  |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P304+P340            | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.                                 |
| P305+P351+P338       | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312                 | Call a POISON CENTER or doctor/physician if you feel unwell.                                                                     |
| P332+P313            | If skin irritation occurs: Get medical advice/attention.                                                                         |
| P337+P313            | If eye irritation persists: Get medical advice/attention.                                                                        |
| P362                 | Take off contaminated clothing and wash before re- use.                                                                          |
| <b>Storage Code</b>  | <b>Phrase</b>                                                                                                                    |
| P403+P233            | Store in a well- ventilated place. Keep container tightly closed.                                                                |
| P405                 | Store locked up.                                                                                                                 |
| <b>Disposal Code</b> | <b>Phrase</b>                                                                                                                    |
| P501                 | Dispose of contents/container to ...                                                                                             |

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME                  | CAS RN   | %   |
|-----------------------|----------|-----|
| 4' - bromoacetanilide | 103-88-8 | >98 |

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

### 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.
- Seek medical attention without delay; 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 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.

### NOTES TO PHYSICIAN

- Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

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## FIRE/EXPLOSION HAZARD

- Non combustible.
  - Not considered a significant fire risk, however containers may burn.
- Decomposition may produce toxic fumes of: nitrogen oxides (NOx).  
May emit poisonous fumes.  
May emit corrosive fumes.

## FIRE INCOMPATIBILITY

- None known.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.

### MAJOR SPILLS

- Moderate hazard.
  - CAUTION: Advise personnel in area.
  - Alert Emergency Services and tell them location and nature of hazard.
  - Control personal contact by wearing protective clothing.
  - Prevent, by any means available, spillage from entering drains or water courses.
- Personal Protective Equipment advice is contained in Section 8 of the MSDS.

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## Section 7 - HANDLING AND STORAGE

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### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

### SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- Avoid strong bases.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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### EXPOSURE CONTROLS

The following materials had no OELs on our records

- 4' - bromoacetanilide:

CAS:103- 88- 8

### MATERIAL DATA

4'-BROMOACETANILIDE:

■ It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.  
At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience).

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically

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occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

## PERSONAL PROTECTION



### RESPIRATOR

•Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

### EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

### HANDS/FEET

■ The selection of the suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- polychloroprene
- nitrile rubber
- butyl rubber
- fluorocarbon

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.

### ENGINEERING CONTROLS

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Off-white crystals; do not mix with water. Soluble in benzene, chloroform, ethyl acetate.

### PHYSICAL PROPERTIES

Solid.

Does not mix with water.

Sinks in water.

|                    |               |                           |                 |
|--------------------|---------------|---------------------------|-----------------|
| State              | Divided solid | Molecular Weight          | 214.07          |
| Melting Range (°C) | 167- 169      | Viscosity                 | Not available   |
| Boiling Range (°C) | Not available | Solubility in water (g/L) | Partly miscible |

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

|                           |                |                                 |                |
|---------------------------|----------------|---------------------------------|----------------|
| Flash Point (°C)          | Not available  | pH (1% solution)                | Not available  |
| Decomposition Temp (°C)   | Not available  | pH (as supplied)                | Not applicable |
| Autoignition Temp (°C)    | Not available. | Vapour Pressure (kPa)           | Not applicable |
| Upper Explosive Limit (%) | Not available  | Specific Gravity (water=1)      | 1.72           |
| Lower Explosive Limit (%) | Not available  | Relative Vapour Density (air=1) | Not applicable |
| Volatile Component (%vol) | Not applicable | Evaporation Rate                | Not applicable |

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

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

For incompatible materials - refer to Section 7 - Handling and Storage.

## Section 11 - TOXICOLOGICAL INFORMATION

### Health hazard summary table:

|                                   |                |
|-----------------------------------|----------------|
| Acute toxicity                    | Not applicable |
| Skin corrosion/irritation         | Skin Irrit. 2  |
| Serious eye damage/irritation     | Eye Irrit. 2A  |
| Respiratory or skin sensitization | Not applicable |
| Germ cell mutagenicity            | Not applicable |
| Carcinogenicity                   | Not applicable |
| Reproductive toxicity             | Not applicable |
| STOT- single exposure             | STOT SE 3      |
| STOT- repeated exposure           | Not applicable |
| Aspiration hazard                 | Not applicable |

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

- The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.

##### EYE

- This material can cause eye irritation and damage in some persons.

##### SKIN

- This material can cause inflammation of the skin on contact in some persons.
- The material may accentuate any pre-existing dermatitis condition.
- Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
- Open cuts, abraded or irritated skin should not be exposed to this material.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

##### INHALED

- The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
  - 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.
- If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

##### CHRONIC HEALTH EFFECTS

- Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
- Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
- There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

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## Section 11 - TOXICOLOGICAL INFORMATION

Chronic intoxication with ionic bromides, historically, has resulted from medical use of bromides but not from environmental or occupational exposure; depression, hallucinosis, and schizophreniform psychosis can be seen in the absence of other signs of intoxication. Bromides may also induce sedation, irritability, agitation, delirium, memory loss, confusion, disorientation, forgetfulness (aphasias), dysarthria, weakness, fatigue, vertigo, stupor, coma, decreased appetite, nausea and vomiting, diarrhoea, hallucinations, an acne like rash on the face, legs and trunk, known as bronchoderma (seen in 25-30% of case involving bromide ion), and a profuse discharge from the nostrils (coryza).

Long-term ingestion of excessive amounts of non-narcotic analgesics can damage the kidney. This can lead to loss of kidney function and metabolic/electrolyte disturbances. Continued abuse can lead to total absence of urine formation. However, kidney function can return to normal after usage stops. Most patients who develop analgesic kidney disease do so after 3 years of using the drug, consuming between 2 and 5 mg daily.

### TOXICITY AND IRRITATION

■ Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

## Section 12 - ECOLOGICAL INFORMATION

No data

### Ecotoxicity

| Ingredient            | Persistence:<br>Water/Soil | Persistence: Air     | Bioaccumulation | Mobility |
|-----------------------|----------------------------|----------------------|-----------------|----------|
| 4' - bromoacetanilide | HIGH                       | No Data<br>Available | LOW             | HIGH     |

## Section 13 - DISPOSAL CONSIDERATIONS

■ Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

## Section 14 - TRANSPORTATION INFORMATION

### HAZCHEM:

None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

## Section 15 - REGULATORY INFORMATION

### REGULATIONS

4'-bromoacetanilide (CAS: 103-88-8) is found on the following regulatory lists;

"Acros Transport Information", "India Hazardous Wastes (Management, Handling and Transboundary Movement) Rules - Schedule 2: List of Wastes Constituents with Concentration Limits", "Sigma-Aldrich Transport Information"

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## Section 16 - OTHER INFORMATION

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### Denmark Advisory list for self classification of dangerous substances

| Substance             | CAS        | Suggested codes |
|-----------------------|------------|-----------------|
| 4' - bromoacetanilide | 103- 88- 8 | Xn; R22 R43     |

■ Classification of the preparation and its individual components has drawn on official and authoritative sources using available literature references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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.

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