

2-CHLOROACETAMIDE

GHS Safety Data Sheet

Version No:2.0

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

2-CHLORACETAMIDE

OTHER NAMES

C2-H4-Cl-N-O, C2-H4-Cl-N-O, "acetamide, 2-chloro", "acetamide, 2-chloro", alpha-chloroacetamide, 2-chloroacetamide, 2-chloroacetamide, 2-chloroethanamide, 2-chloroethanamide.

PROPER SHIPPING NAME

TOXIC SOLID, ORGANIC, N.O.S.

PRODUCT USE

Preservative, microbiocide, laboratory reagent for the synthesis of carboxamidomethyl esters as the carbonyl protecting groups in peptide synthesis.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,
248, WORLI,

MUMBAI- 400030.INDIA.

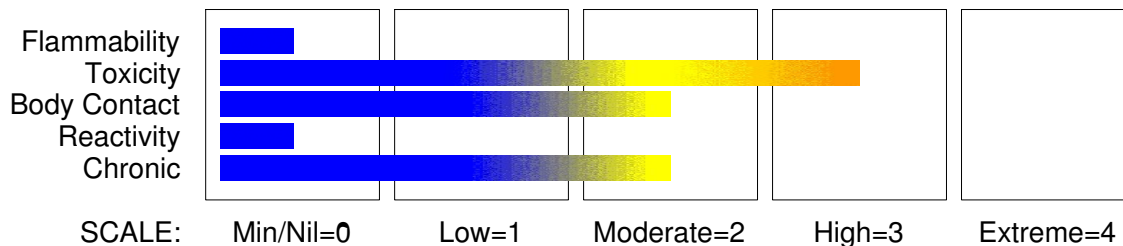
technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS



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Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Inhalation) Category 4

Acute Toxicity (Oral) Category 2

Reproductive Toxicity Category 2

Respiratory Sensitizer Category 1

Skin Sensitizer Category 1



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H300 H332 H334 H317 H361

Fatal if swallowed

Harmful if inhaled

May cause allergic or asthmatic symptoms or breathing difficulties if inhaled

May cause allergic skin reaction

Suspected of damaging fertility

PRECAUTIONARY STATEMENTS

Prevention

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

In case of inadequate ventilation wear respiratory protection.

Use only outdoors or in a well ventilated area.

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

Use personal protective equipment as required.

Contaminated clothing should not be allowed out of the workplace.

Obtain special instructions before use.

Wash hands thoroughly after handling.

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

Response

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

If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

If exposed or concerned: Get medical attention advice.

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

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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

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Section 2 - HAZARDS IDENTIFICATION

Specific treatment: refer to Label or MSDS.
Wash contaminated clothing before reuse.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
chloracetamide	79-07-2	98

Section 4 - FIRST AID MEASURES

SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

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 fumes or combustion products are inhaled remove from contaminated area.

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Section 4 - FIRST AID MEASURES

- 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.
- Transport to hospital, or doctor, without delay.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- 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

- Non combustible.
 - Not considered to be a significant fire risk.
 - Expansion or decomposition on heating may lead to violent rupture of containers.
 - Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
 - May emit acrid smoke.
- May emit poisonous fumes.

FIRE INCOMPATIBILITY

Avoid contact with strong oxidisers, strong acids and strong alkalis.

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

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Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

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 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.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.

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Section 7 - HANDLING AND STORAGE

- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

Packaging as recommended by manufacturer.

STORAGE INCOMPATIBILITY

Segregate from strong oxidisers, strong acids and strong alkalis.

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.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

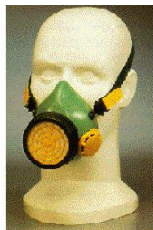
- chloracetamide:

CAS:79- 07- 2

MATERIAL DATA

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION



EYE

- Close fitting gas tight goggles.

HANDS/FEET

Wear protective gloves, eg. PVC.

OTHER

No special equipment needed when handling small quantities.
Ensure there is ready access to a safety shower.

RESPIRATOR

Protection Factor
10 x ES

Half- Face Respirator
P1 Air- line*

Full- Face Respirator
- -

Powered Air Respirator
PAPR- P1 -

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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:	Air Speed:
solvent, vapours, degreasing 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, 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

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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. Local exhaust systems must be designed to provide a minimum capture velocity at the fume source away from the worker of 0.5 metre/sec.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White crystalline powder with characteristic odour; mixes with water and alcohol.

PHYSICAL PROPERTIES

Solid.

Mixes with water.

Molecular Weight: 93.51

Melting Range (°C): 116- 121

Solubility in water (g/L): Miscible

pH (1% solution): Not available

Volatile Component (%vol): Not applicable

Relative Vapour Density (air=1): Not applicable

Lower Explosive Limit (%): Not available

Autoignition Temp (°C): Not available

State: Divided solid

Boiling Range (°C): 224- 5

Specific Gravity (water=1): Not available

pH (as supplied): Not available

Vapour Pressure (kPa): Negligible

Evaporation Rate: Not applicable

Flash Point (°C): Not applicable

Upper Explosive Limit (%): Not available

Decomposition Temp (°C): Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Avoid reaction with oxidising agents, strong acids and strong alkalis.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.

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

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Section 11 - TOXICOLOGICAL INFORMATION

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.

Toxic effects may result from skin absorption.

INHALED

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. Inhalation of quantities of liquid mist may be extremely hazardous, even lethal due to spasm, extreme irritation of larynx and bronchi, chemical pneumonitis and pulmonary oedema.

CHRONIC HEALTH EFFECTS

Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population.

Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. Significant symptoms of exposure may persist for extended periods, even after exposure ceases. Symptoms can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes and passive smoking.

Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.

Exposure to the material may cause concerns for human fertility, generally on the basis that results in animal studies provide sufficient evidence to cause a strong suspicion of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects, but which are not a secondary non-specific consequence of other toxic effects.

Principal routes of exposure are usually by skin contact/absorption, inhalation and ingestion.

Ingestion may result in nausea, abdominal irritation, pain and vomiting.

Chronic inhalation exposure may result in nasal ulceration and/or perforation of nasal septum.

Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.

Toxic effects may result from skin absorption.

TOXICITY AND IRRITATION

TOXICITY

Unrep. (rat) LD50: 70 mg/kg

Laboratory experiments have shown mutagenic effects, reproductive effects (male), and effects on the thyroid gland.

NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.

IRRITATION

Nil Reported

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Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant:Not Determined
No data for chloracetamide.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Treat and neutralise at an effluent treatment plant.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: TOXIC
HAZCHEM: 2XE

UNDG:

Dangerous Goods Class:	6.1	Subrisk:	None
UN Number:	2811	Packing Group:	II
Shipping Name:TOXIC SOLID, ORGANIC, N.O.S.			

Air Transport IATA:

ICAO/IATA Class:	6.1	ICAO/IATA Subrisk:	None
UN/ID Number:	2811	Packing Group:	II
ERG Code:	6L		
Shipping name:TOXIC SOLID, ORGANIC, N.O.S.			

Maritime Transport IMDG:

IMDG Class:	6.1	IMDG Subrisk:	None
UN Number:	2811	Packing Group:	II
EMS Number:	F- A, S- A	Marine Pollutant:	Not Determined
Shipping name:TOXIC SOLID, ORGANIC, N.O.S.			

Section 15 - REGULATORY INFORMATION

REGULATIONS

chloracetamide (CAS: 79-07-2) is found on the following regulatory lists;
OECD Representative List of High Production Volume (HPV) Chemicals

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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: 12-May-2018