

MATERIAL SAFETY DATA SHEET

1GHS Product identifier

Product name Dodecylamine, 98%
Code D 2435a

2. Hazard identification

2.1 Classification of the substance or mixture

Aspiration hazard, Category 1

Skin corrosion, Category 1B

Specific target organ toxicity \u2013 single exposure, Category 3

Specific target organ toxicity \u2013 repeated exposure, Category 2

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H304 May be fatal if swallowed and enters airways
H314 Causes severe skin burns and eye damage
H335 May cause respiratory irritation
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/\u2026
P331 Do NOT induce vomiting.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER/doctor/\u2026
P321 Specific treatment (see ... on this label).
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/doctor/\u2026 if you feel

Response

unwell.
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container to ...

Storage

Disposal

2.3 Other hazards which do not result in classification
none

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Dodecanamine	Dodecanamine	124-22-1	none	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.

In case of skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention .

In case of eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

If swallowed

Rinse mouth. Do NOT induce vomiting. Give one or two glasses of water to drink. Refer for medical attention .

4.2 Most important symptoms/effects, acute and delayed

Excerpt from ERG Guide 153 [Substances - Toxic and/or Corrosive (Combustible)]: TOXIC; inhalation, ingestion or skin contact with material may cause severe injury or death. Contact with molten substance may cause severe burns to skin and eyes. Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. (ERG, 2016)

4.3 Indication of immediate medical attention and special treatment needed, if necessary

EARLY TREATMENT /CORROSIVE BURNS OF ESOPHAGUS/ CONSISTS OF IV FLUID THERAPY, BROAD SPECTRUM ANTIBIOTICS, SEDATION, PARENTERAL HYDROCORTISONE & MORE IMPORTANTLY MAINTAINING PATENCY OF THE ESOPHAGUS FOLLOWED BY DILATATION. /ALKALIES/

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

To fight fire, use foam, carbon dioxide, dry chemical.

5.2 Specific hazards arising from the chemical

Excerpt from ERG Guide 153 [Substances - Toxic and/or Corrosive (Combustible)]: Combustible material: may burn but does not ignite readily. When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards. Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Runoff may pollute waterways. Substance may be transported in a molten form. (ERG, 2016)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into covered sealable containers. Carefully collect remainder. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Separated from acids, acid anhydrides, acid chlorides and oxidants. Store in an area without drain or sewer access. Provision to contain effluent from fire extinguishing.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state white solid

Colour OIL

Odour AMINE ODOR

Melting point/ freezing point 320 \u00b0C(dec.)(lit.)

Boiling point or initial boiling point and boiling range 259 \u00b0C(lit.)

Flammability Combustible. Gives off irritating or toxic fumes (or gases) in a fire.

Lower and upper explosion limit / flammability limit no data available

Flash point 35 \u00b0C(lit.)

Auto-ignition temperature no data available

Decomposition temperature no data available

pH no data available

Kinematic viscosity no data available

Solubility In water: 78 mg/L (25 \u00b0C)

Partition coefficient n-octanol/water (log value) 4.76

Vapour pressure 64 mm Hg (170 \u00b0C)

Density and/or relative density 0.8

Relative vapour density no data available

Particle characteristics no data available

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Combustible when exposed to heat or flame ...DODECANAMINE neutralizes acids in exothermic reactions to form salts plus water. May be incompatible with isocyanates, halogenated organics, peroxides, phenols (acidic), epoxides, anhydrides, and acid halides. Flammable gaseous hydrogen may be generated in combination with strong reducing agents, such as hydrides.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

... Can react with oxidizing materials.

10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

11.Toxicological information

Acute toxicity

Oral: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12.Ecological information

12.1Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2Persistence and degradability

A 60% of theoretical BOD (30 ppm dodecylamine) in an activated sludge inoculum over a 12 day incubation period, suggests that dodecylamine may biodegrade in the environment(1). No biodegradation was observed for 100 ppm dodecylamine in an activated sludge over a 12 day incubation period(1).

12.3Bioaccumulative potential

An estimated BCF of 2,400 was calculated for dodecylamine(SRC), using an estimated log Kow of 4.8(1,SRC) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is very high.

12.4Mobility in soil

The Koc of dodecylamine is estimated as 9,300(SRC), using an estimated log Kow of 4.8(1,SRC) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that dodecylamine is expected to be immobile in soil. An H-Type isotherm was observed for the sorption of dodecylamine to sodium montmorillonite in aqueous solution; this type of isotherm indicates that the solute is preferentially sorbed to such an extent that no measurable amount remains in solution(4).

12.5Other adverse effects

no data available

13.Disposal considerations

13.1Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14.Transport information

14.1UN Number

ADR/RID: UN3259 IMDG: UN3259 IATA: UN3259

14.2UN Proper Shipping Name

ADR/RID: AMINES, SOLID, CORROSIVE,\nN.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.

IMDG: AMINES, SOLID, CORROSIVE,\nN.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.

IATA: AMINES, SOLID, CORROSIVE,\nN.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S.

14.3Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

14.4Packing group, if applicable

