
Information and recommendations for patients

- These guidelines are based on information about the aliphatic amines mono-, di-, trimethylamine, and mono-, di-, triethylamine. Recommendations for other aliphatic amines might be similar. However, these guidelines do not cover special features potentially related to other aliphatic amines.
 - Patients exposed only to gas/vapor of aliphatic amines do not pose a significant risk of secondary contamination. Victims whose clothing or skin is contaminated with liquid aliphatic amines can secondarily contaminate rescue and medical personnel by direct contact or through off-gassing/evaporation of aliphatic amines.
 - Gas, vapor or liquid of aliphatic amines is highly irritating and can cause serious injuries to eyes or skin.
 - Irritation of the respiratory tract can result in rhinorrhea, coughing, and dyspnea. Swelling of the throat and signs of accumulation of fluid in the lungs (shortness of breath, cyanosis, expectoration) may occur.
 - There is no antidote to be administered to counteract the effects of aliphatic amines. Treatment consists of supportive measures.
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Substance information

Aliphatic amines: (Mono-)methylamine (CH_3NH_2) CAS 74-89-5, dimethylamine ($(\text{CH}_3)_2\text{NH}$) CAS 124-40-3, trimethylamine ($(\text{CH}_3)_3\text{N}$) CAS 75-50-3, (mono-)ethylamine ($\text{CH}_2\text{CH}_2\text{NH}_2$) CAS 75-04-7, diethylamine ($(\text{CH}_3\text{CH}_2)_2\text{NH}$) CAS 109-89-7, triethylamine ($(\text{CH}_3\text{CH}_2)_3\text{N}$) CAS 121-44-8.

The lower aliphatic amines discussed here are alkyl derivatives of ammonia. At room temperature, methylamine and ethylamine are colorless gasses, the other aliphatic amines are volatile liquids. The amines are soluble to slightly soluble in water. They all have a distinctly unpleasant odor. In high concentrations their odor is like ammonia, in lower concentrations their odor is fishlike.

Aliphatic amines are widely used as basic materials for chemical syntheses, as intermediates and as solvents in the manufacture of plastics, crop protection products, explosives, dyes, surfactants, catalysts and other chemicals.

What immediate health effects can result from exposure to aliphatic amines?

People usually notice the fishlike or ammoniacal odor of even small amounts of aliphatic amines and experience burning of the eyes, nose, and throat. Tearing, coughing and choking may occur. Eye exposure to concentrated gas, vapor or liquid can cause serious corneal injuries and may lead to visual disturbances. Hazing of vision, blue/grey vision and halos may be noticed. Skin contact with liquid aliphatic amines may cause burns.

Are any future health effects likely to occur?

A single exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. However, some symptoms could linger for a short time period. Permanent impairment of vision may result after eye exposure to liquid aliphatic amines.

Follow-up instructions

Keep this page and take it with you to your next appointment. Follow only the instructions checked below.

- () Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:
 - coughing or wheezing
 - difficulty breathing or shortness of breath
 - increased pain, swelling, redness, or a discharge from exposed skin or eyes
 - hazing of vision, blue/gray vision or halos
- () No follow-up appointment is necessary unless you develop any of the symptoms listed above.
- () Call for an appointment with Dr. _____ in the practice of _____
When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____
and were advised to be seen again in _____ days.
- () Return to the Emergency Department/_____ Clinic on (date) _____
at _____ am/pm for a follow-up examination.
- () Do not perform vigorous physical activities for 1 to 2 days.
- () You may resume everyday activities including driving and operating machinery.
- () Do not return to work for _____ days.
- () You may return to work on a limited basis. See instructions below.
- () Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.
- () Avoid drinking alcoholic beverages; alcohol may worsen your clinical condition.
- () Avoid taking the following medications: _____

- () You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

- () Other instructions: _____

Signature of patient _____ Date _____
Signature of physician _____ Date _____

References

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