

AMLGUARD (AMLGUARD / AML-GUARD AIRCRAFT CLEANER)

EXPOSURE IN NAVY AVIATION:

SHORT- AND LONG-TERM HEALTH EFFECTS

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AmlGuard (often spelled AMLGUARD or AML-GUARD) is a heavy-duty aircraft cleaner and degreaser used in Navy aviation maintenance for:

- Corrosion control
- General aircraft washing
- Cleaning hydraulic fluid, oils, grease, and soot
- Preparing surfaces for inspection and maintenance
- Wheel well, landing gear, and engine bay cleaning

AmlGuard formulations may include:

- Alkaline detergents
- Surfactants
- Glycol ethers
- Solvent carriers
- Corrosion inhibitors

These can create inhalation hazards, skin irritation, and chronic sensitivity with repeated exposure.

SHORT-TERM (ACUTE) EFFECTS OF AMLGUARD EXPOSURE

1. Respiratory Irritation:

Inhalation of mist or fumes may cause:

- Burning throat
- Coughing
- Chest tightness
- Shortness of breath

- Increased mucus production

Symptoms increase in enclosed spaces such as hangars or aircraft bays.

2. Eye and Skin Irritation:

AmlGuard is alkaline and can be irritating.

Effects include:

- Red, burning, or watery eyes
- Skin redness
- Itching or dryness
- Chemical dermatitis

Some users report rapid skin drying and cracking after repeated contact.

3. Neurological Symptoms (from glycol ether components):

- Headache
- Lightheadedness
- Fatigue
- Mild confusion during prolonged exposure

These occur more often when ventilation is poor.

4. Gastrointestinal Symptoms:

- Nausea
- Vomiting
- Metallic or chemical taste

5. Reactive Vapor Exposure:

When mixed with oils, hydraulic fluids, or sealants, fumes become more irritating.

LONG-TERM (CHRONIC) EFFECTS OF AMLGUARD EXPOSURE

1. Chronic Dermatitis:

Repeated contact may cause:

- Persistent skin irritation
- Cracking or bleeding
- Chemical sensitivity that worsens over time

2. Chronic Respiratory Conditions:

Long-term inhalation can lead to:

- Chronic cough
- Airway hypersensitivity
- Reactive airway disease
- Worsening asthma
- Reduced lung function

3. Neurological Effects:

Exposure to glycol ethers over long periods may contribute to:

- Difficulty concentrating
- Memory issues
- Chronic headaches
- Fatigue or slowed cognitive processing

4. Liver and Kidney Stress:

Glycol ether-based cleaners can create metabolic stress, potentially causing:

- Mild liver enzyme elevation
- Kidney irritation

Severe disease is rare but occupational cases exist.

5. Reproductive Concerns (from glycol ethers):

Studies have shown possible:

- Reduced fertility
- Menstrual irregularities
- Developmental toxicity in high-exposure scenarios

Human evidence is limited but risk is acknowledged.

6. Chemical Sensitivity:

Repeated long-term exposure can make the body react more strongly to:

- Cleaners
- Solvents
- Fumes

This may present as chronic irritation on minimal contact.

NAVY AVIATION ROLES AT HIGHEST RISK

- Aviation Structural Mechanics (AM)
- Aviation Machinist's Mates (AD)
- Aviation Electronics Technicians (AT)
- Corrosion control personnel
- Aircraft wash rack teams
- Landing gear and wheel well maintenance
- Depot-level cleaning technicians

Tasks performed in confined aircraft spaces significantly increase exposure risk.

VA DISABILITY CLAIM WRITEUP EXAMPLE

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****Statement in Support of Claim: AMLGUARD Exposure – Navy Aviation****

I am submitting this statement in support of my claim for service-connected disability related to long-term exposure to AMLGUARD aircraft cleaner during my service in the United States Navy.

From [YEAR] to [YEAR], I served as an Aviation [RATE/MOS] assigned to the USS [SHIP] and naval air stations. My duties included corrosion control, general aircraft cleaning, degreasing components, and preparing surfaces for maintenance. These tasks required regular and prolonged use of AMLGUARD, often involving spray application, scrubbing, and wiping in enclosed areas such as wheel

wells, fuselage bays, and hangars with poor ventilation.

Personal protective equipment was not consistently provided or enforced. As a result, I frequently inhaled AMLGUARD vapors and experienced immediate symptoms including headaches, throat irritation, dizziness, burning eyes, and nausea. Direct skin contact often caused redness, dryness, and irritation that worsened with repeated exposure.

Since leaving the Navy, I have continued to experience chronic symptoms consistent with long-term exposure to cleaning chemicals such as AMLGUARD. These include persistent respiratory irritation, chronic dermatitis, fatigue, headaches, and difficulty concentrating. Medical evaluations have documented [RESPIRATORY CONDITION / CHRONIC DERMATITIS / NEUROCOGNITIVE SYMPTOMS / OTHER], which are known long-term effects associated with solvent and glycol ether-based aircraft cleaners.

Given the nature of my duties, the frequency and duration of my AMLGUARD exposure, the lack of adequate protective equipment, and the persistence of symptoms after my military service, I believe my current health conditions are directly related to my occupational exposure in Navy aviation. I respectfully request that the VA recognize this disability as service-connected.

Signed,

[Veteran Name]

[Date]