



# Airborne Hazard Recognition Chart for Handling Livestock

Agent	Significant Characteristic Color, Odor, Particulate Nature	Transmission or Contact of Agent	Effect and Prominent Symptoms	Dangerous Working Conditions	Prevention or Precautionary Measures
<b>Gases</b>					
Ammonia NH <sub>3</sub>	sharp, pungent, heavier than air	inhalation	irritation of respiratory tract and asphyxiation at high concentrations	agitation of manure pit and ventilation failure	adequate ventilation (open doors and windows); turn fans on 10-15 minutes before entering pit; wear self-contained breathing apparatus
Carbon dioxide CO <sub>2</sub>	no odor, heavier than air	inhalation	trouble breathing, headaches, drowsiness, and asphyxiation	agitation of manure pit, combustion engine exhaust and ventilation failure	adequate ventilation (open doors and windows); turn fans on 10-15 minutes before entering pit; wear self-contained breathing apparatus
Hydrogen sulfide H <sub>2</sub> S	rotten egg smell, heavier than air	inhalation	irritation of eyes and nose, headache, dizziness, nausea, unconsciousness, and death	agitation of manure pit and ventilation failure	adequate ventilation (open doors and windows); turn fans on 10-15 minutes before entering pit; wear self-contained breathing apparatus
Methane CH <sub>4</sub>	odorless, lighter than air	inhalation	mild asphyxiant, primarily explosion hazard	agitation of manure pit and ventilation failure	adequate ventilation; no smoking or other ignition sources in area
Nitrogen dioxide NO <sub>2</sub>	yellowish brown gas, bleach-like smell, heavier than air	inhalation	initial irritation of eyes and mucous membrane: silo filler's disease, shortness of breath, fever and death	greatest danger during first 48 hours after filling silo; danger exists up to 10 days after filling	stay away from silo during first 48 hours after filling—after this, if entry is necessary run blower for 20 minutes prior to entry; open all chute doors down to level of silage; wear self-contained breathing apparatus

## Dust

Fungi	biological particulate, spores	inhalation	farmer's lung, trouble breathing	wet moldy forage	wear dust mask when handling moldy forage or grain
Nuisance dusts, silicates, etc.	small dust particles	inhalation	no direct symptoms or effect but may aggravate existing lung conditions; after long periods of exposure can cause lung problems	dusty rooms, field, etc., grinding and conveying feed and silage	wait for dust to settle or use a dust mask

## Pesticides

1. Dusts (general)	particulate and dust used on livestock	inhalation, ingestion, skin absorption	varies with specific agent but may cause lung damage and poisoning	greatest danger while diluting and mixing concentrate	use a chemical cartridge filter respirator, chemical goggles; read label for other personal protection requirements
2. Dips (general)	organic vapor	inhalation, ingestion, skin absorption	varies with specific agent but may cause lung damage and poisoning	greatest danger while diluting and mixing concentrate, dipping animals	use a chemical cartridge filter respirator, chemical goggles; read label for other personal protection requirements
3. Sprays	organic vapors and droplets	inhalation, ingestion, skin absorption	varies with specific agent but may cause lung damage and poisoning	greatest danger while diluting and mixing concentrate, spraying animals	use a chemical cartridge filter respirator, chemical goggles; read label for other personal protection requirements
4. Pour-ons	organic vapors and droplets	inhalation, ingestion, skin absorption	varies with specific agent but may cause lung damage and poisoning	greatest danger while diluting and mixing con- centrate and pouring on animals and rubbing on mixtures	use a chemical cartridge filter respirator, chemical goggles; read label for other personal protection requirements

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