

Summary Report for Individual Task
551-88H-3527
Determine Compatibility of Dangerous or Hazardous Cargo
Status: Approved

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

DESTRUCTION NOTICE: None

Condition: Assigned as a Load Planner in an operational environment, during day or night, in normal weather conditions, given a completed risk assessment, safety briefing, an operation order/plan, safety clothing, dangerous or hazardous cargo; CFR 46, Parts 146 thru 150.160 and Volume 2, CFR 49, Parts 100 thru 185. This task should not be trained in MOPP 4.

Standard: Determine compatibility of dangerous or hazardous cargo without injury to personnel or damage to equipment.

Special Condition: None

Safety Level: Low

MOPP: Never

Task Statements

Cue: You are assigned as a Load Planner tasked to determine compatibility of dangerous or hazardous cargo.

DANGER

Adhere to all DANGER statements listed in the technical manuals and field manuals applicable to this procedure. Failure to comply may result in injury to personnel or damage to the equipment.

WARNING

Adhere to all WARNING statements listed in the technical manuals and field manuals applicable to this procedure. Failure to comply may result in injury to personnel or damage to the equipment.

CAUTION

Adhere to all CAUTION statements listed in the technical manuals and field manuals applicable to this procedure. Failure to comply may result in injury to personnel or damage to the equipment.

Remarks: None

Notes: None

Performance Steps

1. Locate the United States Coast Guard (USCG) class and Department of Transportation (DOT) class on the cargo shipping label of the commodities to be stowed.
2. Locate the DOT class of the other commodity to be stowed on the left side of the compatibility chart (see Figure 3-147).
3. Draw an imaginary line on the compatibility chart horizontally and vertically from the two classes of commodities to be stowed.
4. Determine from looking at the point where the two lines intersect, whether the two commodities may be stowed together.

CARGO COMPATIBILITY		REACTIVE GROUPS																						
CARGO GROUPS		1. NON-OXIDIZING MINERAL ACIDS	2. SULFURIC ACID	3. NITRIC ACID	4. ORGANIC ACIDS	5. CAUSTICS	6. AMMONIA	7. ALIPHATIC AMINES	8. ALKANOL AMINES	9. AROMATIC AMINES	10. AMIDES	11. ORGANIC ANHYDRIDES	12. ISOCYANATES	13. VINYL ACETATE	14. ACRYLATES	15. SUBSTITUTED ALLYLS	16. ALKYLENE OXIDES	17. EPICHLOROHYDRIN	18. KETONES	19. ALDEHYDES	20. ALCOHOLS, GLYCOLS	21. PHENOLS, CRESOLS		
1. NON-OXIDIZING MINERAL ACIDS		X				X	X	X	X	X	X	X	X	X			X	X						1
2. SULFURIC ACID	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3. NITRIC ACID		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3
4. ORGANIC ACIDS		X				X	X	X	X	X			X											4
5. CAUSTICS	X	X	X	X								X	X					X	X		X	X	X	5
6. AMMONIA	X	X	X	X							X	X	X	X			X	X		X	X	X	X	6
7. ALIPHATIC AMINES	X	X	X	X								X	X	X	X		X	X	X	X	X	X	X	7
8. ALKANOL AMINES	X	X	X	X								X	X	X	X		X	X	X	X	X	X	X	8
9. AROMATIC AMINES	X	X	X									X	X							X				9
10. AMIDES	X	X	X				X					X										X		10
11. ORGANIC ANHYDRIDES	X	X	X			X	X	X	X	X	X													11
12. ISOCYANATES	X	X	X	X	X	X	X	X	X	X	X										X	X		12
13. VINYL ACETATE	X	X	X				X	X	X															13
14. ACRYLATES	X	X					X	X																14
15. SUBSTITUTED ALLYLS	X	X					X	X																15
16. ALKYLENE OXIDES	X	X	X	X	X	X	X	X	X															16
17. EPICHLOROHYDRIN	X	X	X	X	X	X	X	X	X															17
18. KETONES		X	X				X																	18
19. ALDEHYDES		X	X			X	X	X	X	X														19
20. ALCOHOLS, GLYCOLS		X	X			X	X					X												20
21. PHENOLS, CRESOLS		X	X			X	X				X													21
22. CAPROLACTAM SOLUTION		X				X	X					X												22
30. OLEFINS		X	X																					30
31. PARAFFINS																								31
32. AROMATIC HYDROCARBONS					X																			32
33. MISCELLANEOUS HYDROCARBON MIXTURES					X																			33
34. ESTERS		X	X																					34
35. VINYL HALIDES					X																		X	35
36. HALOGENATED HYDROCARBONS																								36
37. NITRILES		X																						37
38. CARBON DISULFIDE							X	X																38
39. SULFOLANE																								39
40. GLYCOL ETHERS		X										X												40
41. ETHERS		X	X																					41
42. NITROCOMPOUNDS						X	X	X	X	X														42
43. MISCELLANEOUS WATER SOLUTIONS		X										X												43
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		

Figure 3-147
Cargo Compatibility Chart

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all performance steps are passed (P). Score the Soldier NO-GO if any performance step is failed (F). If the Soldier fails any step, show what was done wrong and how to do it correctly.

Evaluation Preparation: Test this task in conjunction with the Cargo Specialist assessment. Ensure Soldier understands why this task is important to the overall safety during Cargo Handling operations. Ensure that all materials required to perform the task are available. Tell the Soldier that he/she will be evaluated on determining compatibility of dangerous or hazardous cargo.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Located the USCG and DOT classes on the cargo shipping label of the commodities to be stowed.			
2. Located the DOT class of the other commodity to be stowed on the left side of the compatibility chart.			
3. Drew an imaginary line on the compatibility chart horizontally and vertically from the two classes of commodities to be stowed.			
4. Determined from looking at the point where the two lines intersected, whether the two commodities could be stowed together.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	CFR 46	Shipping	Yes	No
	CFR 49	Title 49-Transportation	Yes	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

AR 200-1 delineates TRADOC responsibilities to integrate environmental requirements across DOTMLPF and ensures all training procedures, training manuals, and training doctrine includes sound environmental practices and considerations. The Army's environmental vision is to be a national leader in environmental and natural resource stewardship for present and future generations as an integral part of all Army missions. Environmental protection is never completed. Continuously be alert to ways to protect our environment and reduce waste.

Leaders must ensure that their unit has an active and strong environmental program. They must understand the laws and know what actions to take. Leaders bring focus, direction, and commitment to environmental protection. Commanding officers should ensure the following environmental programs are in place and are being maintained:

- Hazardous materials program.
- Hazardous waste program.
- Hazardous communications program.
- Pollution prevention and hazardous waste minimization recycling program.
- Spill prevention and response plan program.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

All operations will be performed to protect and preserve Army personnel and property against accidental loss. Procedures will provide for public safety incidental to Army operations and activities and safe and healthful workplaces, procedures, and equipment. Observe all safety and/or environment precautions regarding electricity, cable, and lines. Provide ventilation for exhaust fumes during equipment operation and use hearing protection when required IAW AR 385-10, the Clean Air Act (CAA) and the CAA amendments, and the OSHA Hazard Communication standard.

Accidents are an unacceptable impediment to Army missions, readiness, morale, and resources. Decision makers at every level will employ risk management approaches to effectively preclude unacceptable risk to the safety of personnel and property affiliated with this task.

- (a) Take personal responsibility.
- (b) Practice safe operations.
- (c) Recognize unsafe acts and conditions.
- (d) Take action to prevent accidents.
- (e) Report unsafe acts and conditions.
- (f) Work as a team.

Prerequisite Individual Tasks : None

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
551-88H-3520	Direct the Preparation of a Hatch for Handling Military Explosives	551 - Transportation (Individual)	Approved

Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-88H-3520	Direct the Preparation of a Hatch for Handling Military Explosives	551 - Transportation (Individual)	Approved
551-88H-3519	Direct Dangerous or Hazardous Cargo Operations for Air Movement	551 - Transportation (Individual)	Approved
551-88H-3518	Direct Temporary Storage of Dangerous or Hazardous Cargo	551 - Transportation (Individual)	Approved

Supported Collective Tasks : None