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Selecting a Fire Extinguisher

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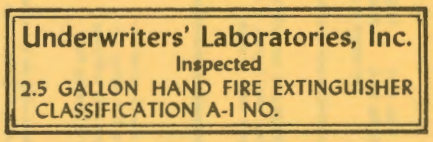
The information in this publication is also useful in South Dakota and is reprinted with permission to be used as a part of the *Home User's Manual*.

The only way to be sure that a fire extinguisher will meet your needs is to have one that has the approval of the Underwriters' Laboratories and/or Factory Mutual. If the extinguisher is approved by either of these it will carry one of the labels shown below. This is your guarantee of quality.



UNDERWRITERS' LABORATORIES

FACTORY MUTUAL

Many aerosol containers, plastic bottles, and other types of unapproved fire extinguishers, with less than a pint of liquid or 16 ozs. of dry power, give their owners a false sense of security. While they may put out a fire in a pie pan, they may be worthless on fires that are slightly larger, or they may not work at all.

CHECK THESE FEATURES

Farm fire extinguishers should:

1. Contain materials that won't freeze.
2. Have sufficient capacity and be proper type to control possible fires in the area where extinguisher is located.
3. Be a type which can be serviced either locally or on the farm.
4. Carry the label of approval of the Underwriters' Laboratories and/or Factory Mutual.

ESTABLISH A PRIORITY

The home is probably the most important place to have a fire extinguisher because home fires are more of a threat to lives as well as property. Home fires are most likely to occur in the kitchen (grease fires) or the heating system (possibly fuel fires). The best extinguishers for a location between these two places are either a dry chemical (a 2½ or 5 lb.-size), a carbon dioxide, or better yet, a 10 lb. general purpose dry chemical extinguisher. Some companies make a 2½ lb. or larger dry chemical extinguisher in which the empty shell is discarded after use. To recharge, a new shell is inserted.

The second priority extinguisher should probably be a 2½ gal. or larger, anti-freeze, or a 10 lb. or larger, general purpose dry chemical type for some central location in the farmstead—possibly the meter pole in order to remind you to shut off the electricity. A water pump type into which water can be poured as it is being used is probably best but two people are needed—one pumping and one carrying water. Anti-freeze can be used to keep this type of extinguisher from freezing.

A third priority extinguisher would be for the shop. A dry chemical or carbon dioxide unit for fighting oil or electrical fires would be best.

Fourth priority would be a 2½-5 lb. dry chemical extinguisher for the farm tractor.

If it is not possible to have all the extinguishers suggested, then get the most important one first and add the others later. Also, if you have greater danger at other locations, a different priority might be better for you.

CARE AND MAINTENANCE

Take proper care of your extinguishers. If there is a worse mistake than not having extinguishers it is to have them and fail to keep them in working order.

See other side for details on different types of extinguishers.

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John T. Stone, Dean of Extension, South Dakota State University, Brookings.
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Each class of fire calls for specialized action. Using the wrong extinguisher may do more harm than good. For your own protection, you should know these basic types, how to use them, and why.*

TYPE	WATER			FOAM	Vaporizing Liquid	CARBON DIOXIDE	Regular, Purple K and Foam-Compatible DRY CHEMICAL	General Purpose DRY CHEMICAL
CLASS A FIRES Paper, wood, cloth, etc. where quenching by water or insulating by general purpose dry chemical is effective.	**YES** **EXCELLENT** Water saturates material and prevents rekindling.			**YES** **EXCELLENT** Foam has both smothering and wetting action.	Small surface fires only.	Small surface fires only.	Small surface fires only.	**YES** **EXCELLENT** Fire-retardant blanket to prevent reflash.
CLASS B FIRES Burning liquids (gasoline, oils, paints, cooking fats, etc.) where smothering action is required.	**NO** Water will spread fire, not put it out.			**YES** **EXCELLENT** Smothering blanket does not dissipate, floats on top of spilled liquids.	**YES** Forms heavy smothering gas.	**YES** **EXCELLENT** Carbon dioxide leaves no residue, does not affect equipment or foodstuffs.	**YES** **EXCELLENT** Chemical smothers fire.	**YES** **EXCELLENT** Provides smothering action.
CLASS C FIRES Fire in live electrical equipment (motors, switches, appliances, etc.) where a non-conducting extinguishing agent is required.	**NO** Water, a conductor, should not be used on live electrical equipment.			**NO** Foam is a conductor and should not be used on live electrical equipment.	**YES** Liquid is a non-conductor.	**YES** **EXCELLENT** Carbon dioxide is a non-conductor, leaves no residue, will not damage equipment.	**YES** **EXCELLENT** Chemical is a non-conductor; screen of dry chemical shields operator from heat.	**YES** **EXCELLENT** Chemical is a non-conductor; screen of dry chemical shields operator from heat.
PRESSURE SOURCE	Gas from soda-acid action.	Stored air pressure	Pump	Pressure from chemical reaction.	Hand pumping.	Gas compressed in cylinder.	Internal pressure stored in cylinder.	Internal pressure stored in cylinder.
CAPACITY AND UL RATING ★	2½ gallons 2-A	2½ gallons 2-A	2½ gallons 2-A 5 gals. 4-A	2½ gals. 2-A, 4-B	1 qt. ½-B:C 1½ qts. ½-B:C	5 lbs. 4-B:C 15 lbs. 12-B:C 10 lbs. 8-B:C 20 lbs. 12-B:C (net weight of gas)	Regular / Purple K / Foam-Compatible 2½ — 8-B:C 2¾ — 6-B:C 5 — 10-B:C 10 — 16-B:C — 20-B:C — 16-B:C 20 — 20-B:C — 20-B:C — 20-B:C 25 — 20-B:C (net weight of powder)	10 lbs. 2-A, 16-B:C 20 lbs. 3-A, 20-B:C (net weight of powder)
MAINTENANCE Inspect external physical condition. On tag sign and date each inspection and recharging.	Discharge and recharge annually. Hydrostatic test every 5 years. Protect from freezing.	Check pressure gauge semi-annually. Hydrostatic test every 5 years. Protect from freezing.	Inspect periodically. Test by discharging. Protect from freezing.	Discharge and recharge annually. Hydrostatic test every 5 years. Protect from freezing.	Check pump by partially discharging semi-annually.	Weigh semi-annually. Hydrostatic test every 5 years, if used; otherwise every 12 years.	Check pressure gauge semi-annually, or if with gas cartridge, weigh cartridge semi-annually. Hydrostatic test every 10 years. Check total charged weight annually.	Check pressure gauge semi-annually. Hydrostatic test every 10 years. Check total charged weight annually.

★ The larger the numbers before the letters A and B, the more capacity the fire extinguisher has. For example, the 10 lb. general purpose dry chemical extinguisher with a 2-A, 16-B:C rating, has the same capacity on "A" fires of paper, wood, cloth, etc. as the 2½ gal. pump tank which also has a 2-A rating. It has more capacity on "B" fires of burning liquids with its 16-B rating than the 10 lb. carbon dioxide extinguisher with an 8-B rating. The C rating only indicates that an extinguisher can be used on live electrical equipment. The capacity is determined by what is burning. For example, if paper insulation is burning then the "A" rating of the extinguisher determines its capacity.

Extinguishers made before 1956 were rated differently. If it would put out a 1 sq. ft. test fire, then it might be rated B1:C1 or A1:B1, depending on the class of fire it could be used on. No rating higher than 1 was ever given. If the extinguisher would not put out the 1 sq. ft. test fire, then the number of extinguishers that would be needed was indicated. For example, the former B2:C2 meant that it took 2 extinguishers to put out a 1 sq. ft. class "B" test fire. This equals the present ½ -B:C (The "C" no longer carries a number).

Adapted from a chart produced by Walter Kidde & Company. To clarify information it is sometimes necessary to use trade names of products or equipment. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.