

ADVANCED WATER ENGINEERING, INC.

INDIAN HARBOUR BEACH, FL 32937 (321)777-4909 FAX: (321)773-8338

e-mail: info@advancedwater.com www.advancedwater.com

AWE, Inc Safe D Scale Specification Sheet

1. AWE, Inc Safe D Scale is a non-toxic, non-corrosive, non-flammable, non-injurious tar oil base solvent, heavily fortified with wetting and penetrating agents used for the rapid removal of water scale, lime and rust deposits found on the water side of any equipment that is water cooled, water heated or water operated, in any manner.

AWE, Inc Safe D Scale is biodegradable which allows for expended solution to be disposed of through regular sewer systems with a water flush.

- 2. The solution is non-toxic, non-corrosive, non-flammable and non-injurious to personnel when used as directed at any temperature within operating limits. (Not to exceed 120°F)
- 3. The solution does not corrode, erode, attack, pit, oxidize or have other deleterious affects on metals or materials such as:

COPPER FIBER PLASTIC IRON STEEL RUBBER LEAD

or other materials or metals found in water heated, water cooled or water operated equipment when used as directed.

- 4. The exceptions to paragraph 3 are <u>some</u> alloys of aluminum, magnesium and stainless steel. These metals will oxidize and, with a few exceptions, discolor. Some alloys of these metals are known to discolor and react galvanically in concentrated *AWE*, *Inc Safe D Scale* solutions. To minimize this reaction, use a diluted *AWE*, *Inc Safe D Scale* solution. Test compatibility on a small sample area.
- 5. It is recommended that AWE, Inc Safe D Scale be diluted 50% or more when cleaning chrome as most chrome finishes will discolor.
- 6. *AWE, Inc Safe D Scale* is an electrolyte, as are most cleaning agents. An electrolyte is any liquid that will transfer small electrical currents. Examples: Salt Water, Vinegar and Coke.

An electrolyte may cause plating in some types of equipment. This means a transfer of small amounts of metal onto another metal. In some instances a thin coating of copper may be plated onto a steel drum while circulating an electrolyte such as AWE, Inc Safe D Scale.

The only time plating occurs is when two different metals are in an electrolytic solution.

- 7. The solution has the ability to dissolve approximately two pounds of calcium carbonate scale per U.S. gallon while at 70°F and in concentrated form.
- 8. The solution does not exude any obnoxious or unpleasant odor in its packaged form.
- 9. The solution does not require any neutralizers, as it is free rinsing with water.

Page 2
February 24, 2003

10. The solution has the ability to dissolve deposits from some equipment while in operation and without shutdown, if auxiliary coolers are incorporated.

- 11. Do not circulate concentrated material for more than a four-hour period without consulting *AWE*, *Inc*. Most *AWE*, *Inc Safe D Scale* cleaning can be accomplished in an average of two hours. Please use material only as directed. Flush all dissolved solids from system when cleaned.
- 12. The solution has the properties to be mailed or shipped by any commercial carrier without restrictions. *AWE, Inc Safe D Scale* can be shipped same day by air carrier for emergencies.
- 13. The concentrated solution can be held safely, in the open hand, without deleterious effects.
- 14. The solution does NOT have an Open or Closed Cup Flash Point and extinguishes flame.
- 15. The solution has the ability and effectiveness to be used at room temperature (50°F-75°F) with full results obtainable. Elevation of temperatures causes harmful, aggressive properties.
- 16. The solution does not develop a substantial increase in temperature while dissolving water scale, lime and rust deposits.
- 17. The solution does not freeze, slush or thicken at any temperature above 10°F.
- 18. The solution does not deteriorate, oxidize, saponify, or lose effectiveness for five years.
- 19. The solution is packaged and shipped in single gallon, 5-gallon jugs, 6-gallon cases, 55 and 275-gallon non-returnable containers.
- 20. The foregoing specifications are applicable to our descaling product, *AWE*, *Inc Safe D Scale*, when used according to instructions available upon request and in NO WAY are intended to cover other uses or applications by the purchaser.