Monsanto
COMPANY

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THERMINOL FR-0

Toxicity and Safe Handling Information

On the basis of animal toxicity studies with this fluid, Therminol FR-0 may be considered moderately toxic from the standpoint of accidental massive skin exposure and only slightly toxic if accidentally ingested. Single exposures to high concentrations of vapors (when heated sufficiently to volatilize) or high concentrations of decomposition products (if the fluid is accidentally discharged into the fire chamber) should not be serious hazards because the irritating character of such concentrations preclude voluntary exposure.

Repeated or prolonged skin exposure should be avoided since Therminol FR-0 acts as a solvent for fats and oils of the skin. Removal of these natural, protective barriers can lead to drying and chapping such as occurs with exposures to paint thinners. More important, Therminol FR-0 may be absorbed if it is allowed to remain on the unbroken skin. For these reasons, we recommend that the skin be washed with soap and water if there is contact. A skin burn resulting from accidental contact with hot fluid should be treated in the normal manner for any thermal burn due to hot oils.

Because of its low vapor pressure, there is no significant vapor inhalation hazard when the fluid is at room temperature. For example, there is no vapor exposure problem while transferring the Therminol FR-0 from its shipping container to the heat transfer system. On the other hand, the vapors emitted when the fluid is heated to elevated temperatures are injurious on prolonged exposure. It is estimated that the "threshold limit value" or atmospheric vapor concentration which cannot be safely exceeded (on a daily basis) is 0.5-1.0 milligrams of MCS 295 vapor per cubic meter of air in the workroom. In heat transfer installations, the fluid must be used in a closed system free from leaks with the expansion tank vented to the outdoors. Accordingly, there should be little or no opportunity for workers to come in contact with vapors.

DSW 282882

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Our label for this product contains the following precautionary statement:

CAUTION!
Contains Chlorinated Hydrocarbons.

Avoid prolonged breathing of vapors or mists.
Avoid contact with eyes or prolonged contact with skin.
If skin contact occurs, remove by washing with soap and water. Following eye contact flush with water.

If clothing becomes soaked with fluid, launder before wearing again.

R. Emmet Kelly, M.D.
Medical Director

August 17, 1966

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