



Total Cray Valley
A Division of Total Petrochemicals & Refining USA, Inc.

Safe Handling of Total Cray Valley SMA® Resins

Product Identification

This document covers styrene-maleic anhydride (SMA) resins under the trade name SMA®. These include SMA and functionalized SMA in solid flake, powder, or pellet form, and SMA or functionalized SMA dissolved in aqueous solution.

General

As with any chemical, the potential health and safety hazards associated with Total Cray Valley products should be understood to ensure that they are used safely. Review each product's Safety Data Sheet (SDS), which includes specific hazard and precautionary information, prior to working with these materials.

Should you require assistance in an emergency situation involving a Total Cray Valley product, please do the following. For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at 800-424-9300. For ALL other inquiries about this product, call Total Cray Valley at 877-US1-CRAY (877-871-2729).

Health Hazards

These products are polymers. Due to their higher molecular weights, these resins are not expected to be ingestion, inhalation or skin absorption hazards. They may cause slight eye and skin irritation, and some forms may cause more severe eye damage according to animal tests. In addition, respiratory tract irritation may occur upon exposure to dust or vapors that may be generated during processing.

Some SMA® products have low levels of residual cumene and/or styrene, which have been determined by some regulatory agencies to be suspect human carcinogens, based on animal tests. While there is no specific evidence that these chemicals cause cancer at the levels at which they are present in SMA®, it is recommended practice to minimize exposure. Some functionalized SMA® products also contain residual chemicals with other health hazards. The SDS includes warnings when appropriate under the regulations.

Other Hazards

Total Cray Valley SMA® products have low flammability and aqueous SMA® products are non-flammable. In the event of a fire, they may become inhalation hazards. Vapors and combustion products from burning materials may be smoky, extremely irritating, or toxic.

Fire fighters should wear self-contained breathing apparatus in addition to eye, face and body protection. Extinguish fires with dry chemical, foam, carbon dioxide, or water fog or spray from a safe distance or protected location. Cool exposed containers with water fog or spray from a safe distance.

Solid SMA® resins may become combustible dusts if sufficiently small particles are generated and suspended in air. Avoid raising dust clouds, which can create an explosion risk. Solid SMA® resins are also static accumulators and can be a source of ignition. Eliminate and control ignition sources and use good housekeeping practices during storage, transfer and handling of these products. Properly ground process and handling equipment to dissipate static charges.

Handling

As with all industrial chemicals, it is important to prevent exposure through the use of protective equipment, proper work practices and engineering controls.

The following precautions should be observed for general handling practices:

- ensure a clean, well ventilated work environment;
- avoid skin contact by wearing impervious gloves;

- wear eye protection such as safety glasses with side shields;
- wear other protective equipment as appropriate;
- review the SDS prior to working with a material.

If skin contact does occur, wash affected areas immediately with soap and water. Rinse thoroughly. If eye contact occurs, immediately flush the eye(s) with clean water for at least 15-20 minutes. Seek medical attention.

Storage

All products should be stored indoors, out of direct sunlight, under controlled temperature conditions unless noted on the SDS. Products should be stored away from reactive materials such as oxidizers and acids and away from heat, sparks, open flame and other ignition sources. Contamination with incompatible materials listed in the SDS must be avoided.

SMA® solutions in water can freeze, possibly rupturing the container. Aqueous solutions should be stored at temperatures above the freezing point of water.

All products should be used according the manufacturer's instructions, including adherence to shelf-life recommendations.

Transportation

SMA® products are not controlled under transportation regulations.

Environmental Protection

Releases to the air are regulated by state and federal authorities. Spill and leak control measures are used in manufacturing including capture and treatment of any water which might be contaminated. Releases to the air could occur from leaks in processing equipment or during sampling, maintenance, cleaning, or transfer operations. Emissions to air and water can be minimized during manufacture and use. These products are not readily biodegradable in wastewater.

Consumer Use

Total Cray Valley does not directly sell any products for use by consumers, although they may be formulated into consumer products by customers of Total Cray Valley. The intended use conditions are in industrial workplaces where any potential exposure to workers and the environment are tightly controlled and confined through industrial hygiene protocols and processes, engineering of the manufacturing equipment, and the use of personal protective equipment. Industrial users of these products should ensure that the resulting formulations are safe for their intended uses.

Disposal

Persons handling empty product containers should wear protective equipment and handle containers in an area away from ignition sources because they may contain residual product.

SMA products are generally not RCRA hazardous wastes. However, it is the responsibility of the waste generator to determine if the product meets the criteria of a hazardous waste at the time of disposal (see 40 CFR 261). Disposal options for these products include landfilling solids at permitted sites, fuel blending or incinerating liquids. Disposal must comply with federal, state and local regulations.

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