

FACT SHEET

ACRYLIC ACID AND THE BASIC ACRYLIC ESTERS

Acrylic acid and one or more of the “basic acrylic esters” – methyl acrylate, butyl acrylate, and ethyl acrylate – are stored and possibly manufactured in your community. Referred to simply as “acrylates,” they are important components in a number of very useful materials that benefit consumers worldwide. Products using acrylates include paints, coatings, textiles, adhesives, detergents, plastics and disposable diapers.

ODOR FROM ACRYLATE FACILITIES Acrylates have a very strong, unpleasant odor that may be bothersome. Nonetheless, it is very important to remember that the smell of acrylates does not signify a health risk.

As active partners in the chemical industry’s Responsible Care® program, all acrylate manufacturing facilities are committed to minimizing the number of release incidents and responding quickly and effectively when they occur.

Like most chemical plants, acrylate facilities employ a “closed-system” designed to prevent releases to the surrounding community. Nevertheless, circumstances can arise that allow extremely small amounts of acrylates to escape during routine maintenance, or other parts of the manufacturing process.

Acrylate facilities have procedures in place to detect releases early and to make repairs as quickly as possible, well before exposures would reach hazardous levels.

SAFETY OF ACRYLATE EXPOSURE An acrylate leak – signaled by its strong odor – rarely poses any health risks.

Acrylates have been used for more than 30 years, and occasional low concentration exposures have not been linked to harmful human health effects, even though the odor associated with the event may have been relatively strong.

In fact, acrylates have an extremely low odor “threshold,” meaning that the exposure level at which you can begin to smell the substance is quite low.

Scientific studies have shown that acrylates break down rapidly in the body and are easily eliminated. Studies also show that acrylates do not cause cancer or birth defects.

SENSORY IRRITATION While it has been established that exposure to acrylates at levels that have unpleasant smells do not usually cause harmful health effects, a few individuals may experience sensory irritation. Sensory irritation refers to temporary tingling or stinging you may sometimes experience in your eyes, nose or throat when you are exposed to a strong odor – perhaps from an onion, chili pepper, or various chemicals like the ammonia or bleach found in some household cleaners.

Depending on your own individual sensitivities to odors, you may experience sensory irritation to the strong odor from an acrylate leak, which could also include respiratory difficulties and even headaches. It is important to note that these symptoms are rare and temporary, and are generally a reaction to the odor of acrylates. For instance, many of us have experienced watery eyes and nasal irritation from an onion – this is a temporary sensory reaction, and is no indication that the onion has harmed us. It is also very possible that while you have a strong reaction to the acrylate odor, your next-door neighbor may have no reaction at all.

FINDING OUT MORE ABOUT ACRYLATES The Basic Acrylic Monomer Manufacturers, the trade group that represents acrylate manufacturers, maintains an Internet site that provides information on acrylates and related chemicals. The address for the site is www.bamm.net.

Also, residents should feel free to contact the facility directly, or to interact with members of the community advisory board that many chemical facilities have established. Finally, the U.S. Environmental Protection Agency is a source of information concerning all chemicals.

RESPONSIBLE CARE® As members of the American Chemistry Council, the members of the Basic Acrylic Monomer Manufacturers adhere to the principles of the Responsible Care® initiative, which are:

- continually improve the health, safety and environmental performance of their facilities
- listen and respond to public concerns

For more information about Responsible Care®, please visit www.americanchemistry.com.

This fact sheet has been developed to communicate with local residents about the potential for odorous releases from nearby chemical plants and to respond to residents’ concerns.