

Health End Points Fact Sheet

Skin Irritation

Exposure to fiber glass and rock and slag wool insulation products can cause temporary, mechanical skin irritation.

Extensive work practices have been developed to reduce the possibility of skin irritation during handling of these materials. The work practices include recommendations for cost-effective engineering controls, proper respirator use when necessary, use of protective clothing and workplace guidelines.

Despite the potential for fiber glass and rock and slag wool fibers to cause temporary and reversible mechanical irritation, they are not classifiable as “Irritants” according to the Hazard

Communication definition promulgated by the Occupational Safety and Health Administration (“OSHA”). OSHA’s definition recognizes that there are differing types and gradations of irritation. Some irritants are mild and temporary while other irritants are severe and can cause more persistent effects. OSHA officially classifies only those materials that meet specific irritation criteria, generally persistent or severe irritation, under the “Irritant” category and requires those materials meeting this definition to carry a warning label.¹

Skin irritation refers to production of reversible damage to the skin occurring after exposure to a substance or mixture.

Depending on the severity of skin reactions, categories of these reactions for classification are split between skin corrosion and skin irritation: corrosive substances are classified as Category 1; classified irritants fall into Category 2; less persistent skin reactions, such as mechanical irritation that subsides when the exposure is removed, are unclassified.

AS FIBER GLASS AND ROCK AND SLAG WOOL INSULATION FIBERS DO NOT MEET THE OSHA CLASSIFICATION CRITERIA FOR IRRITATION, THEY ARE NOT REQUIRED TO CARRY THE “IRRITANT” WARNING LABEL.

In determining the category of corrosion or irritation, a tiered approach is taken by first considering human data, followed by animal data, followed by in vitro data, and then

other sources of information. The scientific data available on fiber glass and rock and slag wool fibers, in general, revealed no evidence of skin corrosion or irritation due to the chemical properties of these fibers.

In some of the human studies evaluated, there was evidence of temporary irritative effects on the skin, whereas other studies concluded that there were no or only insignificant effects on the skin. These effects were caused mechanically by the fibers having a diameter greater than 4.5 µm due to small sharp



particles abrading the epidermis and were transient in nature. The four Good Laboratory Practice (“GLP”)-compliant animal studies reviewed demonstrated that the mean scores for irritation effects were either zero (0) or below the thresholds set by OSHA for classification as an irritant in the regulatory definition.

Based on these studies and international evaluations of all the scientific evidence, experts have concluded there is sufficient support for the statement that fiber glass and rock and slag wool insulation fibers have been studied and evaluated and do not meet the OSHA classification criteria for irritation. As fiber glass and rock and slag wool insulation fibers do not meet the OSHA classification criteria for irritation, they are not required to carry the “Irritant” warning label. These distinctions between different types of irritation and irritation criteria are similarly recognized under the European Globally Harmonized System and Canada’s WHMIS (Workplace Hazardous Materials Information System).

References

1. Appendix A to 29 C.F.R. 1910.1200, § A.2.2.2.

About NAIMA

NAIMA is the association for North American manufacturers of fiber glass, rock wool, and slag wool insulation products. Its role is to promote energy efficiency and environmental preservation through the use of fiber glass, rock wool and slag wool insulation, and to encourage the safe production and use of these materials.

NAIMA, continuing its members’ commitment to safety, has established a renewed Product Stewardship Program, which embodies the components of the earlier OSHA-NAIMA Health and Safety Partnership Program (HSPP). The HSPP was a comprehensive eight-year partnership with OSHA, which NAIMA completed in May 2007, and now NAIMA incorporates these safe work practices into NAIMA’s Product Stewardship Program.

For more information, contact:

NAIMA
11 Canal Center Plaza, Suite 103
Alexandria, VA 22314
Phone: 703-684-0084
Fax: 703-684-0427
www.insulationinstitute.org

NAIMA Member Companies:

Aislantes Minerales, S.A. de C.V.
D.F., México
American Rockwool Manufacturing
Plano, TX
Armstrong World Industries
Lancaster, PA
CertainTeed Corp.
Malvern, PA
Hollingsworth & Vose
East Walpole, MA
Johns Manville
Denver, CO
Knauf Insulation
Shelbyville, IN
Owens Corning
Toledo, OH
Rock Wool Manufacturing Co.
Leeds, AL
ROCKWOOL
Bahalia, MS
Thermafiber, Inc.
Wabash, IN
USG Interiors, Inc.
Chicago, IL

* This is a mechanical irritant only. Fiber glass insulation fibers have been studied and evaluated and do not meet the OSHA Classification Criteria for irritation.