

# **DBNPA**

This document provides a brief description of DBNPA, its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the material safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS Corporation material safety data sheet.

# Identification

Product Name: DBNPA

**Chemical Name:** 2,2-Dibromo-3-nitrilopropionamide

**Synonym(s):** 2,2-Dibromo-2-carbamoylacetonitrile

Alpha, alpha-Dibromo-alpha-cyanoacetamide

Dibromocyanoacetamide

**CAS Number:** 10222-01-2

**Description** 

**Overview:** DBNPA is an off-white solid at ambient temperatures with a mild

antiseptic odor. The chemical is sold in powder form.

**Uses:** DBNPA is sold by LANXESS for use as an algicide, bactericide and

fungicide in industrial water treatment systems and as preservative used in the manufacture of paper, glues, coatings, enhanced oil recovery

systems, metalworking fluids and other products.

**Properties:** Melting Point: 124 to 126°C (255.2 to 258.8°F)

Solubility in Water: Soluble

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# **Potential Human Health Effects**

### **Occupational Exposure**

Potential for occupational exposure to DBNPA exists during manufacture, at bulk unloading, storage and staging areas and during sampling and maintenance operations in facilities using the chemical as an additive in the manufacture of other products. A much lower potential for exposure exists in facilities using DBNPA in closed manufacturing processes by trained personnel.

## **Employee Training**

Workers handling DBNPA should be trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. A NIOSH approved positive pressure air-supplied respirator is required when airborne concentrations of DBNPA may exceed recommended exposure limits. In addition, LANXESS recommends the use of safety glasses with side shields or safety goggles, chemical-resistant gloves, a chemical-resistant protective suit and suitable protective footwear be worn when handling DBNPA.

### **Consumer Exposure**

LANXESS Corporation does not sell DBNPA to the general public.

#### **Short-Term Health Effects**

DBNPA is very toxic by inhalation and toxic by ingestion. Prolonged exposure may cause severe nose, throat and lung irritation. DBNPA dust may cause mechanical (abrasive) irritation to the skin, eyes and respiratory system. DBNPA is severely irritating to the eyes and may cause permanent corneal damage. Skin contact may cause an allergic skin reaction. Pre-existing skin disorders may be aggravated by over-exposure to this product.

#### **Long-Term Health Effects**

DBNPA contains material that may cause target organ damage, based on animal data. Repeated or prolonged inhalation of DBPNA dust may lead to chronic respiratory irritation. Once sensitized, an allergic skin reaction may occur when subsequently exposed to very low levels of DBNPA.

# **Physical Hazards**

DBNPA is stable under normal conditions of use. Avoid contact with strong amines, bases, oxidizing agents and reducing agents. DBNPA is corrosive to mild steel, iron and aluminum. Avoid the creation of dust when handling, and take precautionary measures against electrostatic discharges. Avoid heat, open flames and other potential sources of ignition.

# **Potential Environmental Impact**

DBNPA degrades rapidly in the environment. An accidental release to water may pose a danger to fish (high toxicity), invertebrates (high toxicity) and aquatic plants (high toxicity) prior to degradation. DBNPA is not expected to adsorb to suspended solids and sediment.

# Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, DBNPA is not expected to pose a significant risk to human health or the environment.

# References

Material Safety Data Sheet (SDS), DBNA, LANXESS Corporation

**MedlinePlus Medical Encyclopedia**, U.S. National Library of Medicine and the National Institutes of Health

**ToxNet Hazardous Substance Data Bank**, U.S. National Library of Medicine, National Institutes of Health and the U.S. Department of Health and Human Services

# **Contact Information**

LANXESS Corporation, Product Safety & Regulatory Affairs, 111 RIDC Park West Drive, Pittsburgh, PA 15275-1112, USA, Phone 1-800-526-9377 [1-800-LANXESS]

# **Notices**

# **Use and Application Information**

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.