



# Hydrazine

## Product Stewardship Summary

April 2008

Product Name:	Hydrazine
CAS Name	Hydrazine
CAS Number	302-01-2
EINECS Number	206-114-9

- *General Description.* Hydrazine is available in anhydrous form as well as aqueous solutions.
- *Manufacture.* During production, potential exposure to the concentrate by humans and the environment is tightly controlled and confined through strong industrial hygiene protocols and processes, engineering of the manufacturing equipment, and the use of personal protective equipment.
- *Applications.* The anhydrous form (propellant grade) is used principally in the aerospace industry as fuel in satellites, expendable launch vehicles and auxiliary and emergency power units. The solutions form (hydrates) is used in water treatment, metal reduction, and as an intermediate in the production of chemical blowing agents, pharmaceutical products, and agricultural chemicals.
- *Benefits.* The anhydrous form is used as a highly efficient propulsion fuel in satellites and other aerospace applications. The aqueous form is used as an oxygen scavenger in boiler water treatment.
- *General Precautions.* Proper safety and protective equipment must always be worn when handling Hydrazine. Read and follow label directions thoroughly.

Hydrazine is considered toxic from inhalation and ingestion. Hydrazine is highly toxic from dermal exposure. It has the potential to be fatal when exposures exceed what would be expected from normal industrial practices. Hydrazine is corrosive and may produce chemical burns and severe dermatitis from skin contact. Chronic exposure to Hydrazine by inhalation can cause inflammatory changes of the respiratory tract, as well as depressed fetal growth rates, and liver damage. While Hydrazine is considered a probable human carcinogen by the International Agency on Research for Cancer (IARC) and the U.S. EPA, only a few epidemiology studies have evaluated Hydrazine exposures in an occupational setting. To date, no studies have found a statistically sound relationship between exposures and the development of cancers. The general public is not exposed to this form of hydrazine.

- *Likelihood of Exposure.* Hydrazine is a highly specialized product which is not sold to the consumers or general public. Its uses are in limited industrial workplaces where any potential exposure to humans and the environment are tightly controlled and confined through strong industrial hygiene protocols and processes, engineering of the manufacturing equipment, and the use of personal protective equipment.
- *Risk Management.* Hydrazine is not sold to consumers and has highly specialized uses, thus significant exposure to the general public or the environment has a low probability. For those working directly with this product, it is very important to read and follow all label directions.

For additional information, please visit our web site at [www.archchemicals.com](http://www.archchemicals.com) and click on "Contact Us".

This summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to be, and should not be relied upon as, a substitute for the detailed health and safety information contained in the Material Safety Data Sheet (or any other required hazard communication material) for this product, which should be consulted before use of the chemical or treatment for exposure. As with any product, it is very important to read and carefully follow all label directions and warnings. This summary does not amend, modify, or replace required regulatory and/or legal communication documents.