

GRAND RAPIDS ALLOYS, INC. MATERIALS SAFETY DATA SHEET

Section I. Identification of Product: #31 ALADDIN 3-IN-1 ROD

Product Name: Virgin Die Alloy **Manufacturer's Name:** Grand Rapids Alloys, Inc.
 392-54th St. S.W.
 Grand Rapids, MI 49548
 (616) 532-2301

Chemical Family: Zinc Base Alloys

Section II. - Ingredients (list all ingredients)

Ingredient Name:	CAS Registry No.	%
Zinc	7440666	93
Aluminum	7429905	4
Copper	7440508	3
Magnesium	7439954	.05

Castings made by Grand Rapids Alloys, Inc. Are certified.

Section III. - Physical Data


Boiling Point: 900 F	Specific Gravity (H ₂ O=1)	7.0
Vapor Pressure: N/A	Percent Volatile by Volume(%)	N/A
Solubility in Water: Insoluble	Evaporation Rate	N/A
Appearance and Odor:	Silver Color & No Odor	

Section IV. - Fire and Explosion Hazard Data.

Flash Point: N/A Flammable Limits: N/A
 Extinguishing Media: Low Pressure CO₂ metal - X powder
 Special Fire Fighting Procedures: Cover with sand
 Usual Fire And Explosion Hazards: Flame will trace fine zinc dust. Dust in certain concentrations can be explosive. Products of combustion are metal oxides.

Section V. - Health Hazard Data

Threshold Limit Value: Zinc Oxide fume is 8 Hr. TWA of 5.0 mg/m ;
 STEL of 10.0 mg/m
 Route of Entry: Inhalation Yes, Skin No. Ingestion No.
 Emergency And First Aid Procedures: Fresh Air & Appropriate First Aid.



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Section VI. - Reactivity Data

Stability: Stable

Incompatibility (materials to Avoid) Strong Acids, Strong Alkalis

Section VII. - Spill or Leak Procedures

Steps to be taken in case material is released or spilled:

Zinc spillage in any form and quantity is addressed by regulatory statutes.

Waste Disposal Method:

Zinc Waste should be disposed of according to existing State & Federal Regulations.

Section VIII - Special Protection Information

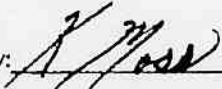
Respiratory Protection: Dust Mask, fume or high-efficiency particulate respirator

Protective Gloves: N/A Eye Protection: Safety Goggles

Other Protective Equipment: N/A

Section IX. - Special Precautions

Precautions to be taken in handling and storage: Keep Dry during Storage

Date Issued: 5/1/98 Revision _____ Approved by: 

The information provided in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the users responsibility to determine the suitability of this information for the adoption of safety precautions as may be necessary. We reserve the right to revise Material Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the company to make sure that the sheet is the latest one issued.