



SAFETY DATA SHEET

ALUMINUM NANOPARTICLES FLOW FROM 1NM TO 100NM

MANUFACTURER/SUPPLIER	DESCRIPTION	
JAVI NANOTECHNOLOGY CORP EIN 84-2905354 8095 NW 90 TM Street, Medley, Florida 33166.	Technology of Aluminum Nanoparticles Flow	CAS# 7429-90-5
	PACKING	
	Glass bottles containing 1000 (thousand) grams	
	FORMULA	PURITY
	Al	99,9998%
	CHEMICAL PROPERTIES	
	Appearance	Fluid
	Molecular Weight	28.98
	Melting/Boiling Point	660°
	Odor	Odorless
	pH	No data available
Initial Boiling Point and Boiling Range	2467°	
Water Solubility	2.699 g/cm ³	

HAZARD IDENTIFICATION	
DESCRIPTION	Xn Harmful F Highly flammable Information pertaining to particular dangers for man and environment: R 11 Highly flammable R 62 possible risk of impaired fertility R 63 Possible risk of harm to the unborn child
CLASSIFICATION SYSTEM	HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1 Flammability = 3 Reactivity = 1





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FIRST AID MEASURES

AFTER INHALATION	Supply fresh air, if required, provide artificial respiration. Keep patient warm. Seek immediate medical advice
AFTER SKIN CONTACT	Immediately wash with water and soap and rinse thoroughly Seek immediate medical advice
AFTER EYE CONTACT	Rinse opened eye for several minutes under running water then consult doctor
AFTER SWALLOWING	Seek immediate medical advice

FIRE FIGHTING MEASURES

ACCIDENTAL RELEASE MEASURES

Suitable extinguishing agents:

Special powder for metal fires
Do not use water

For safety reasons unsuitable extinguishing agents:

Water
Protective equipment
Wear self-contained respirator
Wear fully protective impervious suit

Person related safety precautions:

Wear protective equipment
Keep unprotected persons away
Ensure adequate ventilation
Keep away from ignition sources

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits

Measures for cleaning/collecting:

Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents
Keep away from ignition sources

HANDLING AND STORAGE

Information for safe handling. Keep the container tightly sealed. Store in cool, dry places in tightly closed containers. Ensure good ventilation at the workplace

Information about protection against explosions and fires:

Keep ignition sources away. Protect against electrostatic charges
Fumes can combine with air to form an explosive mixture

Storage

Store in a cool location





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PERSONAL PROTECTION	TOXICOLOGICAL INFORMATION
<p>GENERAL PROTECTIVE AND HYGIENIC MEASURES</p> <p>The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin</p> <p>Breathing equipment: Use suitable respirator when high concentrations are present Protection of hands: Impervious gloves Eye protection: Safety glasses Body protection: Protective work clothing</p>	<p>ACUTE TOXICITY</p> <p>Primary irritant effect</p> <p>On the skin: Irritant to skin and mucous membranes On the eye: Irritating effect Sensitization: No sensitizing effects known Subacute to chronic toxicity: Aluminum compounds may be irritating to the skin, eyes and respiratory tract. They may cause metal fume fever, hemolysis of the red blood cells and injury to the liver, lungs, kidneys and pancreas. Ingestion may also cause vomiting, gastric pain, dizziness, anemia, cramps, convulsions, shock, coma and death. Aluminum solutions may cause sensitization reactions</p>

STABILITY AND REACTIVITY
<p>Conditions to be avoided/thermal decomposition: Decomposition will not occur if used and stored according to specifications. Dangerous reactions. Contact with acids releases flammable gases. Dangerous products of decomposition. Toxic metal oxide fume</p>

TRANSPORT INFORMATION	
<p>DOT REGULATIONS</p> <p>Hazard class: 4.1 Identification number: UN1309 Packing group: II Proper shipping name: Metal powders, flammable, N.O.S. (aluminum)</p> <p>LAND TRANSPORT ADR/RID (cross-border)</p> <p>ADR/RID class: 4.1 Flammable solids Item: 13c Danger code (Kemmler): 40 UN-Number: 1309 Description of goods: Metal powders, flammable, N.O.S. (aluminum)</p>	<p>MARITIME TRANSPORT IMDG</p> <p>IMDG Class: 4.1 UN Number: 1309 Packing group: II Proper shipping name: Metal powders, flammable, N.O.S. (aluminum)</p> <p>AIR TRANSPORT ICAO-TI AND IATA-DGR</p> <p>ICAO/IATA Class: 4.1 UN/ID Number: 1309 Packing group: II Proper shipping name: Metal powders, flammable, N.O.S. (aluminum)</p>

