

## MATERIAL SAFETY DATA SHEET

### LEVRON-VIZYON AEROGEL FELTS

#### 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

**Product Name** : Levron-Vizyon Aerogel Felts (IPF2000 series)  
**Product Other Names** : Silica Aerogel, Silica Aerogel Fiber Composite  
**Usage/Preparation of the Product** : High Performance Insulation Material  
**Manufacturer** : Isovoll Nanoteknoloji Yalıtım Ür. Tic. ve San. A.Ş.  
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#### 2. HAZARDS IDENTIFICATION

**Appearance and Odor**: White non-woven felt fabric material without characteristic smell.  
**Emergency Overview**: Inhalation of excessive amounts of dust from the product may cause irritation to the respiratory tract. Dermal contact may cause irritation.

#### POTENTIAL HEALTH EFFECTS

**Inhalation**: Inhalation of airborne dusts may cause irritation of the upper respiratory tract.

**Eye Contact**: Exposure to dust from this product can produce a drying sensation and irritation of the eyes.

**Skin Contact**: Skin contact with dust from this product can produce a drying sensation and irritation of the skin.

**Ingestion**: This material is not intended to be ingested. If ingested in large quantity, the material may produce irritation and blockage.

**Acute Health Hazards**: Dust from this product is a physical irritant, and may cause temporary irritation or scratchiness of the throat and / or itching of the eyes and skin.

**Chronic Health Hazards**: Some studies of long term amorphous silica dust exposures indicate a potential for decreased lung function. In surveyed studies, this effect is characterized as compounded by smoking. Additionally, surveyed studies characterize the decreased lung function effect as reversible on discontinuation of exposure.

#### CARCINOGENICITY

This product is composed of synthetic amorphous silica dioxide, often referred to as silica gel or amorphous precipitated silica. Amorphous silica should not to be confused with crystalline silica. Epidemiological studies indicate low potential for adverse health effects from exposure to amorphous silica.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

##### Levron Aerogel Felts

Chemical Name	Amount (weight)	CAS Number
Silika jel	20-60%	102262-30-6
Glass Fiber Felt	40-80%	NA

**4. FIRST AID MEASURES** **Eye Contact:** Immediately wash with large amounts of water for at least 15 minutes, occasionally lifting lids. If irritation occurs and persists, get medical treatment.

**Skin Contact:** Wash skin thoroughly with soap and plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Obtain medical attention if symptoms occur.

**Ingestion:** Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air. Drink water to clear throat and blow nose to remove dust. Obtain medical attention if ill effects persist.

**5. FIRE-FIGHTING MEASURES** **Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Hazardous combustion products:** No data available. Treat material as having potential for emission of toxic gases upon combustion.

**Special protective equipment for firefighting:** Wear self-contained breathing apparatus for firefighting if necessary.

Flammability properties	C.O.C. Flash Point:	Not applicable
	T.C.C. Flash Point:	Not applicable
	Auto Ignition Temperature:	Not applicable
In the air Flammability Limits	L.E.L.	Not applicable
	U.E.L.	Not applicable

**Hazardous combustion products:** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Formaldehyde. Organic products of decomposition.

**6. ACCIDENTAL RELEASE MEASURES** **Personal Precautions:** Minimize dust generation. Ensure adequate ventilation. Use personal protective equipment as necessary.

**Environmental Precautions:** Material is not soluble. Do not flush into surface water or sanitary sewer system.

**Methods for Cleaning up:** Contain and collect released material for proper disposal.

**7. HANDLING AND STORAGE** **Handling:** Levron Aerogel blankets will generate dust when handled. Workplace exposure to all dusts should be controlled with standard industrial hygiene practices. Local exhaust ventilation should be the primary dust control method. Dust released during the handling of Levron Aerogel blankets should be cleaned up promptly. Levron Aerogel dust is hydrophobic, water is not effective as a dust control agent.

**Storage:** Levron Aerogel blankets should be kept in their packaging until they are ready to be used. Unpack the material in the work area. This will help to minimize the area where dust exposure may occur.

Recommended Storage Temperature	Minimum: -5 ° C / Maximum: 50 ° C
Shelf Life	Could be unlimited if necessary storage conditions satisfied.
Storage Precautions	Store separately from oxidizing agents, volatile chemicals and strongly acidic or alkaline materials.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure Limits	No exposure limits identified for the main product component
Engineering Controls	user operations generate dust, fumes or mist, use local exhaust ventilation and the general extraction.

**Exposure Control**

Respiratory Protection	If conditions are present involving dust evolution above the occupational exposure limit, wear suitable respiratory protective equipment.
Hand Protection	Levron Silica aerogels are hydrophobic (repel water) and may cause drying and irritation of the skin, eyes, and mucous membranes. For this reason, nitrile, latex, or other impermeable gloves should be worn when handling Levron Aerogel blankets.
Skin Protection	also advised. Disposable coveralls should be considered to minimize skin exposure and track out of Levron Aerogel dusts into adjacent areas. Barrier creams should be applied before work is commenced. Suitable gloves should be worn.
Eye Protection	Safety glasses, or chemical goggles as needed to provide greater protection from dust.

**9. PHYSICAL AND  
 CHEMICAL  
 PROPERTIES**

Appearance	Light Cream Felt
Color	Light Cream
Odor	No characteristic odor
Boiling Point	Not applicable
Solubility In Water	Insoluble
Specific Gravity	300 - 1500 kg/m <sup>3</sup>
pH	4 - 6
Flash point / Ignition	Not applicable
Explosive Properties	Not applicable
Oxidizing Properties	Not applicable
Evaporation Rate	Not applicable
Viscosity	Not applicable

**10. STABILITY AND  
 REACTIVITY**

Chemical Stability	Stable
Dry Thermal Decomposition	>300 ° C
Incompatibility With Other Material	Incompatible with oxidizing agents and strongly acidic and alkaline materials.
Decomposition	May produce oxides of carbon on decomposition.
Hazard Decomposition Products	Formaldehyde

**11.  
 TOXICOLOGICAL  
 INFORMATION**

No radioactive or toxic materials. Repeated or prolonged contact may lead to removal of natural fats from the skin, resulting in non-allergic dermatitis and absorption through the skin. Splashes in eyes may cause irritation and reversible local damage. Ingestion may result in sore throat, abdominal pain or nausea. Inhalation of dust must be avoided; continuous high concentration dust can cause damage at lungs.

**12. ECOLOGICAL  
INFORMATION**

As it does not contain soluble heavy metals, the product does not cause ecological or toxicological problems like other compounds containing heavy metals. It should not be allowed to enter drains or watercourses.

**13. DISPOSAL  
CONSIDERATIONS**

Do not allow entering drains and watercourses or anywhere that may affect ground or surface waters. Dispose in an approved landfill in accordance with federal, state / provincial, and local regulation. Cover promptly to avoid dust generation.

**14. TRANSPORT  
INFORMATION**

To transport within the user's premises, always use closed containers that are secure and upright. Ensure that operational personnel know what to do in event of spillage. It is not hazardous in the sense of the transport regulations. Not restricted under IATA.

**15. REGULATORY  
INFORMATION**

The products are determined as not being dangerous for supply according to current Chemicals Hazard Information and Packing Regulations in force. The information contained in this Material Safety Data Sheet, does not substitute the user's own responsibility to carry out an assessment of work place risks as may be required by Health and Safety Legislation.

**16. OTHER  
INFORMATION**

The products should not be used for purposes other than those shown on the manufacturer's product labels and technical data sheets. As the specific conditions of use are outside the supplier's control; the user is responsible for ensuring compliance with the relevant legislation in the territory of use.

The information contained in this Material Safety Data Sheet, is based on the current state of knowledge and current state of Legislation. It provides guidance on Health Safety and Environmental aspects of the products, and should not be taken as a guarantee of technical performance or suitability for particular applications.