

MATERIAL SAFETY DATA SHEET

Sorb-dry

WATER TRAP – HUMIDITY ABSORBER

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

Company	PT. DAMASES SEJAHTERA
Address	Sukoharjo, Jawa Tengah, Indonesia
Office	Gading Permai Raya Blok AZ 19-20 Grogol, Sukoharjo, Jawa Tengah 57552
Telephone Number	0271-622988/62521
Fax Number	0271-622988
Trade Names	Sorb-Dry
Chemical Families	1. Calcium Chloride (Food Grade) 2. Amylum 3. Bentonite
Product Use	Use as a container desiccant for various product

Section 2 – INGREDIENTS INFORMATION

No.	Component	Ingredient Name	CAS	ACGIH/TIV
1	Active material : - Calcium Chloride - Amylum - Bentonite	Calcium chloride anhydrous 74% food grade Amylum Bentonite	N/A N/A N/A	18mg/cu.in. N/A N/A
2	Case materials : - Nonwovens Membrance - Spunbond - Duplex cover - Plastic bag	Nonwovens Membrance 95 Gsm Heigen PP spunbond 75 Gsm M125/125/M125B/F + Duplex Coated 250gr Low Density Poly Ethylene (LDPE) 10 µ	N/A N/A N/A N/A	N/A N/A N/A N/A

Section 3 – HAZARD IDENTIFICATION

None of ingredients classified as hazardous under the OSHA Hazard Communication standard

Route of entry : inhalation, skin contact, ingestion, eyes contact.

Precautionary measures : do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Avoid prolonged or repeated inhalation of dust or skin contact. Slip hazard when wet.

Primary route(s) of entry : inhalation

Sign and symptoms of exposure : eye contact may produce slight irritation and/or redness. Inhaled dust may cause some respiratory irritation.

Carcinogenicity : not listed as a carcinogen by IARC, NTP, OSHA or ACGIH. There is no evidence that this product poses a carcinogenic risk under normal conditions of handling and use.

Medical Condition Aggravated by Exposure : Existing respiratory conditions.

Section 4 – FIRST AID MEASURES

Under normal conditions, Nonwovens Membrane will not allow product to create exposure hazard. No special precautions are required when containers remain intact. If containers are compromised, or if container are exposed to hazards which will allow compromise, the active components can be irritating, the following precautions should be observed :

Inhalation : remove to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion : if large amounts have been ingested, emetics to cause vomiting. Stomach siphon may be applied as well. Milk and fatty acid should be avoided. Get medical attention immediately.

Eyes contact : wash eyes immediately and carefully for 15 minutes with running water, lifting upper and lower eyelids occasionally. Get prompt medical attention.

Skin contact : to avoid repeated or prolonged contact with this chemical, use good hygienic practices. Wash with soap and a large amount of water. Get medical attention if irritation or inflammation develops.

Additional information : the above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any inaccuracies.

Section 5 – FIRE FIGHTING MEASURES

Sensitivity to mechanical Impact : None

Sensitivity to Static Dis charge : Sorb-Dry is very stable, the dust will not explode.

Flammability : non flammable solids, liquids or gasses.

Conditions of flammability : at temperatures at or above flash point.

Extinguishing media : Dry chemical, Carbon dioxide, Water spray, or foam. For larger fires, use water spray fog or foam. Do not use direct water jet.

Fire fighting equipment : no special procedures. However, wetted product presents a slip hazard. Pedestrian and vehicular traffic must proceed with caution where wet product may exist.

Extinguishing media to avoid : water may create a slip hazard with product.

Hazardous Combustion Products : oxides of carbon and nitrogen.

Emergency responses Guidebook information : no ERG# number indicated. Handle as combustible material.

Special procedures : self-contained breathing apparatus required. Firefighters should wear the usual protective gear. Do not spray water directly on burning material, it may float and spread the fire. Cool containers that are exposed to flames with water from the side until well after fire is out. For massive fire in enclosed area, use un manned hose holder or monitoring nozzles; if this impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of the tank due to fire.

Section 6 – ACCIDENTAL RELEASE MEASURES

Under normal conditions, Nonwovens membrane will not allow product create exposure hazard. No special precautions are required when containers remain intact. If containers are compromised, or if containers are exposed to hazards which will allow compromise, the active components can be irritating, the following precautions should be observed :

Accidental release measure : Product becomes slippery and difficult to handle when wet; spills are best handled while still dry. Sweep up and collect dry product. Recovered product maybe be used per label instructions. Absorb wet product with vermiculite or other inert material and contain for disposal; may allow absorbed product to air dry prior to disposal. Floors and similar surfaces may be water washed to further remove slip hazard.

Notify safety personnel of spills or leak : clean-up personnel need protection against inhalation of dusts or fumes. Eye protected is required. Place in appropriate containers for disposal. Flush spill area with water. If slipperiness remains apply more dry-sweeping compound. Prevent liquid entering sewers. Keep airborne particulates at a minimum level.

Section 7 – HANDLING AND STORAGE

Handling procedures and equipment : good personal hygiene practices can reduce exposure. Use adequate ventilation. Wash thoroughly after using, particularly before eating or smoking. Keep out of reach of children. Avoid contact with skin, eyes and clothing. Wear suitable protective clothing. Do not take internally. Avoid breathing vapor, fumes or mist. Launder contaminated clothing prior to reuse.

Storage precaution : store in a dry and well ventilated place. Store below 115°F (46°C). Keep away from a heat source. Keep in tightly closed container (when not in use). Protect container and protective moisture barrier liner after use. Store away from incompatible materials. (see section 10).

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Under normal conditions, Nonwovens membrane will not allow product create exposure hazard. Notify safety personnel of spills or leak.

Occupation exposure limits : no values have been established.

- Engineering measures** : engineering controls are not usually necessary if good hygiene practice are followed.
- Respiratory protection** : provide a NIOSH/MSHA jointly approved respirator in the absence of proper environmental control. Contact your safety equipment supplier for proper mask type. IHG for the calcium salt is 10 mg/cumin.
- Ventilation** : provide general and/or local exhaust ventilation to keep exposure below the TLV. Ventilation used must be designed to prevent spots of dust accumulation or recycling of dusts.
- Protective Clothing** : wear protective clothing including long sleeves and gloves, to prevent repeated or prolonged skin contact. Specific protective clothing is not required unless the contents of the bag are exposed.
- Eye protective** : chemical splash goggles designed in compliance with OSHA regulations are recommended. Consult your safety equipment supplier.
- Additional information** : provide eyewash station(s). Select additional protective equipment (e.g. apron, face shield, etc.), depending on condition of use.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor : small white hygroscopic granules mixed with light brown powder.

Properties	Calcium chloride	PAM
Physical state	Solid	Solid
Boiling point	1600°C	125°C
Solubility in water	Freely soluble	Soluble, solubility limited by viscosity
Vapor pressure (mm Hg)	N/A	N/A
Vapor density	N/A	N/A
Bulk density	2.15 gr/cm ³ @20°C	1.122 gr/cm ³ @30°
Melting point	782°C	84.5°C
% volatile by weight @ 1750°F	N/A	N/A
Evaporation rate	N/A	N/A
pH	8-9 Aqueous solution	≈6 for 1% solution

Section 10 – STABILITY AND REACTIVITY

- Chemical stability** : stable under ordinary conditions of use and storage.
- Incompatible materials** : *Sulfuric acid* (yields hydrogen chloride gas, which is corrosive, irritating and reactive). *Water-reactive materials, such as sodium* (cause an exothermic reaction).

Methyl vinyl ether (starts runaway polymerization reaction). *Zinc as in galvanized iron* (yields hydrogen gas with solutions, which may explode under these conditions). Strong oxidants such as liquid chlorine, enriched gaseous or liquid oxygen, and sodium or calcium hypochlorite.

Hazardous decomposition products : thermal decomposition or combustion may produce oxides of carbon and nitrogen, various hydrocarbons, and/or ammonia which may be irritating or harmful. Addition of alkaline compounds may result in ammonia calcium compounds.

Hazardous polymerization : will not occur.

Section 11 – TOXICOLOGICAL INFORMATION

CaCl₂ :

LC50/ 96hr values for fish are over 100mg/l.

PAM :

Oral LD50 (rat)	: N/A > 5000 mg/kg (actual)
Dermal LD50 (rabbit)	: N/A > 10000 mg/kg (actual)
Inhalation LC50 (4-hour rat)	: N/A > 20.0 mg/L (estimated)
Skin Irritation (rabbit)	: Not irritating
Eye irritation (rabbit)	: Not irritating
Dermal Sensitization	: Not sensitizing
Inhalation Sensitization	: Not sensitizing
Carcinogenicity	: Not listed as Carcinogen by IARC, NTP, OSHA, or ACGIH
Reproductive Toxicity	: No data for product. No effects anticipated
Teratogenicity	: No data for product. No effects anticipated
Mutagenicity	: No data for product. No effects anticipated
Toxicologically synergistic products	: None known

Section 12 – ECOLOGICAL INFORMATION

Environmental Fate : non biodegradable or bioaccumulative

Ecotoxicity : not ecotoxic

Section 13 – DISPOSAL CONSIDERATIONS

Waste disposal : consult applicable local, state, and federal regulations to select the method of disposal. Recover metal components by reprocessing whenever possible.

Section 14 – TRANSPORT INFORMATION

TDG classification : Not regulated.

Special shipping information : see transportation information. Not classified as hazardous for transport.

Section 15 – REGULATORY INFORMATION

MARKING AND LABELING

Not classified as hazardous for supply.

SYMBOL : none required.

RISK PHRASES : none

SAFETY PHRASES : Spills are very slippery when wet.

Section 16 – OTHER INFORMATION

Personal Protection : HMIS assigns choice of personal protective equipment to the customer, as the raw material supplier is unfamiliar with the conditions of use.

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