Calcium sulfate hemihydrate

12090-25KG

SECTION 1. IDENTIFICATION

Product name	:	Calcium sulfate hemihydrate
Number	:	000000021941
Product Use Description	:	Laboratory chemicals
Manufacturer or supplier's details	:	Honeywell International Inc. 1953 South Harvey Street Muskegon, MI 49442
For more information call	:	1-800-368-0050 +1-231-726-3171(Monday-Friday, 9:00am-5:00pm)
In case of emergency call	:	**Medical: 1-800-498-5701 or +1-303-389-1414**
	:	**Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887**
	:	
	:	(24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Form	:	solid
Color	:	colourless
Odor	:	odourless

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonised System (GHS).

Precautionary statements	:	**Prevention:** Use personal protective equipment as required.
Hazards not otherwise	:	Repeated or prolonged exposure may irritate eyes, skin and

classified respiratory system.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : $CaO_4S \cdot 0.5H_2O$

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Calcium Sulfate (Hemihydrate)	10034-76-1	100.00 %

SECTION 4. FIRST AID MEASURES

General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation : Remove to fresh air. Use oxygen as required, provided a qualified operator is present. Call a physician.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Call a physician if irritation develops or persists.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.

Ingestion : Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. Immediate medical attention is required.

Notes to physician

Most important : No information available.

symptoms/effects, acute and delayed		
Indication of immediate medical attention and special treatment needed, if necessary	:	Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Foam Carbon dioxide (CO2) Dry powder
Specific hazards during firefighting	:	The product itself does not burn. Fire may cause evolution of: Sulphur oxides Calcium oxides
Special protective equipment for firefighters	:	Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Avoid dust formation. Provide adequate ventilation. Avoid breathing dust. Avoid contact with skin, eyes and clothing.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.
Methods and materials for containment and cleaning	:	Use mechanical handling equipment. Sweep up and shovel into suitable containers for disposal.

up	Dispose of in accordance with local regulations.

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling	:	Wear personal protective equipment. Use only in well-ventilated areas. Avoid breathing dust. Avoid contact with skin, eyes and clothing.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities	:	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Avoid dust formation.
Engineering measures	:	Use with local exhaust ventilation.
Eye protection	:	Safety glasses with side-shields
Hand protection	:	Latex gloves Gloves must be inspected prior to use. Replace when worn.
Skin and body protection	:	Wear suitable protective equipment. Wear as appropriate: Protective suit
Respiratory protection	:	In case of insufficient ventilation, wear suitable respiratory equipment.
Hygiene measures	:	Take off all contaminated clothing immediately.

Remove and wash contaminated clothing before re-use.
When using do not eat or drink.
Wash hands before breaks and at the end of workday.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Calcium Sulfate (Hemihydrate)	10034-76-1	TWA : Time weighted average	10 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information :	Form of exposure : Inhalable fraction.				

Calcium Sulfate (Hemihydrate)	10034-76-1	REL : Recommended exposure limit (REL):	10 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information :	Form of exposure : Total				

Calcium Sulfate (Hemihydrate)	10034-76-1	REL : Recommended exposure limit (REL):	5 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information :	Form of exposure : Respirable.				

Calcium Sulfate (Hemihydrate)	10034-76-1	REL : Recommended exposure limit (REL):	5 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information :	Form of exposure : Respirable.				

Calcium Sulfate (Hemihydrate)	10034-76-1	REL : Recommended exposure limit (REL):	10 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information	:	Form of exposure : Total			

Calcium Sulfate (Hemihydrate)	10034-76-1	PEL : Permissible exposure limit	5 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Further information	:	Form of exposure : Respirable fraction.			

Calcium Sulfate (Hemihydrate)	10034-76-1	PEL : Permissible exposure limit	15 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Further information	:	Form of exposure : Total dust.			

Calcium Sulfate (Hemihydrate)	10034-76-1	PEL : Permissible exposure limit	15 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Further information	:	Form of exposure : Total dust.			

Calcium Sulfate (Hemihydrate)	10034-76-1	PEL : Permissible exposure limit	5 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Further information	:	Form of exposure : Respirable fraction.			

Calcium Sulfate (Hemihydrate)	10034-76-1	TWA : Time weighted average	15 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Further information	:	Form of exposure : Total dust.			

Calcium Sulfate (Hemihydrate)	10034-76-1	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Further information	:	Form of exposure : Respirable fraction.			

Calcium Sulfate (Hemihydrate)	10034-76-1	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
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Further information	:	Form of exposure : Total dust.			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	solid
Color	:	colourless
Odor	:	odourless
Odor threshold	:	Note: No data available

pH	:	Note: No data available
Melting point/range	:	Note: No data available
Boiling point/boiling range	:	Note: No data available
Flash point	:	Note: Not applicable
Evaporation rate	:	Note: No data available
Lower explosion limit	:	Note: Not applicable
Upper explosion limit	:	Note: Not applicable
Vapor pressure	:	Note: No data available
Vapor density	:	Note: No data available
Density	:	ca. 2.320 g/cm3 at 20 °C
Water solubility	:	2.5 g/l at 20 °C
Partition coefficient: n-octanol/water	:	Note: No data available
Ignition temperature	:	Note: Not applicable
Decomposition temperature	:	128 °C Note: Decomposition temperature
Viscosity, dynamic	:	Note: No data available

Viscosity, kinematic	:	Note: No data available
Molecular weight	:	145.15 g/mol
Bulk density	:	ca. 950 kg/m3

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions. Product is hygroscopic.
Possibility of hazardous reactions	:	Hazardous polymerisation does not occur.
Conditions to avoid	:	Protect from atmospheric moisture and water.
Incompatible materials	:	None
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Sulphur oxides Calcium oxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Acute inhalation toxicity	:	Note: Not classified due to data which are conclusive although insufficient for classification.

Acute dermal toxicity	:	Note: No data available
Skin irritation	:	Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404
Eye irritation	:	Species: Rabbit Result: No eye irritation Method: OECD Test Guideline 405
Sensitisation	:	Buehler Test Species: Guinea pig Result: non-sensitizing Method: OECD Test Guideline 406
Repeated dose toxicity	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Genotoxicity in vitro	:	Test Method: gene mutation test Metabolic activation: with and without metabolic activation Result: negative Method: OECD Test Guideline 471
	:	Test Method: In vitro gene mutation study in mammalian cells Metabolic activation: with and without metabolic activation Result: negative Method: OECD Test Guideline 476
Genotoxicity in vivo	:	Test Method: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Toxicity to daphnia and other aquatic invertebrates	:	Note: Not classified due to data which are conclusive although insufficient for classification.
Toxicity to algae	:	Note: Not classified due to data which are conclusive although insufficient for classification.

Elimination information (persistence and degradability)

Biodegradability	:	Note: The methods for determining biodegradability are not applicable to inorganic substances.

Further information on ecology

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	:	Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT	Not dangerous goods
TDG	Not dangerous goods
IATA	Not dangerous goods
IMDG	Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Inventories

US. Toxic Substances Control Act	:	On TSCA Inventory

Australia. Industrial Chemicals Act (AIIC), as amended	:	On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	:	All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	:	On the inventory, or in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	:	On the inventory, or in compliance with the inventory
Philippines. Inventory of Chemicals and Chemical Substances (PICCS)	:	On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances (IECSC)	:	On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	:	On the inventory, or in compliance with the inventory
Taiwan Chemical Substance Inventory (TCSI)	:	On the inventory, or in compliance with the inventory

National regulatory information

SARA 302 Components	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	:	No SARA Hazards

California Prop. 65	:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	
Massachusetts RTK	:	Calcium Sulfate (Hemihydrate)	10034-76-1
New Jersey RTK	:	Calcium Sulfate (Hemihydrate)	10034-76-1
Pennsylvania RTK	:	Calcium Sulfate (Hemihydrate)	10034-76-1

SECTION 16. OTHER INFORMATION

		HMIS III	NFPA
Health hazard	:	1	1
Flammability	:	0	0
Physical Hazard	:	0	
Instability	:		0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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