

# NOSB NATIONAL LIST FILE CHECKLIST

## PROCESSING

**MATERIAL NAME:** #1 Calcium sulfate



NOSB Database Form



References



MSDS (or equivalent)



FASP (FDA)



TAP Reviews from: **Joe Montecalvo, Rich  
Theuer, Steve Taylor,  
William Zimmer, Walter  
Jeffery**

**NOSB/NATIONAL LIST  
COMMENT FORM  
PROCESSING**

**Material Name: #1 Calcium sulfate**

*Please use this page to write down comments, questions, and your anticipated vote(s).*

**COMMENTS/QUESTIONS:**

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1. In my opinion, this material is:  
\_\_\_\_\_ Synthetic \_\_\_\_\_ Non-synthetic.

2. Should this material be allowed in an “organic food” (95% or higher organic ingredients)? \_\_\_\_\_ Yes \_\_\_\_\_ No  
**(IF NO, PROCEED TO QUESTION 3.)**

3. Should this substance be allowed in a “food made with organic ingredients” (50% or higher organic ingredients)? \_\_\_\_\_ Yes \_\_\_\_\_ No

# TAP REVIEWER COMMENT FORM for USDA/NOSB

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: Aug. 5, 1996

Name of Material: Calcium Sulfate

Reviewer Name: William A. Zimmer D.V.M. RECEIVED JUL 30 1996

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

non-synthetic - commonly found natural mined ore  
If synthetic, how is the material made? (please answer here if our database form is blank)

This material should be added to the National List as:

Synthetic Allowed  Prohibited Natural

or,  Non-synthetic (Allowed as an ingredient in organic food)

Non-synthetic (Allowed as a processing aid for organic food)

or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

Large reserves of calcium sulfate (gypsum) exist which are byproducts of industrial processing. These should not be allowed for organic use due to contamination with numerous potentially toxic substances - solvents, etc.

Please comment on the accuracy of the information in the file:

Properties - naturally occurring gray, white ores

Type of use - soil nutrient, amendment providing calcium and sulfur.

Any additional comments? (attachments welcomed)

Information currently limited to processing only!

Do you have a commercial interest in this material?  Yes;  No

Signature William A. Zimmer D.V.M. Date 7/8/96

Please address the 7 criteria in the Organic Foods Production Act:  
(comment in those areas you feel are applicable)

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;

As Soil nutrient - none

As Animal nutrient - minimal, excessive feeding levels could produce a sulfate excess. Under the anaerobic conditions of the digestive tract hydrogen sulfide gas could be formed. No detrimental actions if fed at normal dietary rates.

- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;

none - toxic compounds could only arise from contaminants added to calcium sulfate as byproducts of industrial processing

- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance; none - land application provides usable plant nutrients

- (4) the effect of the substance on human health;

not applicable

- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;

Source of soil nutrients - calcium and sulfur, generally considered to improve soil tilth, biological activity and soil productivity. Source of available crop nutrients. Source of available livestock nutrients.

- (6) the alternatives to using the substance in terms of practices or other available materials; and combinations of other sulfur or calcium containing compounds, e.g. calcium carbonate, calcium oxide, potassium sulfate, magnesium sulfate, elemental sulfur. as nutrient source

- (7) its compatibility with a system of sustainable agriculture.

very compatible

# TAP REVIEWER COMMENT FORM for USDA/NOSB

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: Aug. 5, 1996

Name of Material: Calcium Sulfate

Reviewer Name: R C Theuer RECEIVED AUG 05 1996

Is this substance Synthetic or non-synthetic? Explain (if appropriate)  
SYNTHETIC

If synthetic, how is the material made? (please answer here if our database form is blank)

This material should be added to the National List as:  
 Synthetic Allowed       Prohibited Natural  
or,  Non-synthetic (Allowed as an ingredient in organic food)  
 Non-synthetic (Allowed as a processing aid for organic food)  
or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

Please comment on the accuracy of the information in the file:  
ADEQUATE

Any additional comments? (attachments welcomed)

Do you have a commercial interest in this material? Yes;  No  
Signature R C Theuer Date 8/5/96

USDA/TAP REVIEWER  
COMMENT FORM

Mailing date: 1 Jul 1996.

Due date: 5 Aug 1996

Name of Materials: Calcium Sulfate, Food Grade  
Reviewer Name: Richard C. Theuer

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**SYNTHETIC:** The natural mineral "gypsum" is calcium sulfate. However, for food use the purity requirements demand a synthetic material made by reacting calcium hydroxide with sulfuric acid. Both calcium hydroxide and sulfuric acid are synthetic materials, so their reaction product, calcium sulfate, is synthetic as well.

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**COMMENTS RE SECTION 2119(m) CRITERIA:**

1. Inhalation of calcium sulfate dust is the only real hazard with this material.
  2. Calcium is an essential nutrient, the level of which must be labeled in the Nutrition Facts box. Calcium sulfate is relative insoluble but has some bioavailability.
  3. Calcium sulfate (gypsum) is used to treat clay soils so the relatively small amounts of calcium sulfate used in foods would not represent a hazard to soil microorganisms or crops.
- 

The following synthetic substance should be allowed as an ingredient in organic foods. It should be added to the National List of synthetic substances allowed for use as ingredients or processing aids in Organic Food:

calcium sulfate

August 5, 1996

# TAP REVIEWER COMMENT FORM for USDA/NOSB

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This file is due back to us by: Aug. 5, 1996

Name of Material: Calcium Sulfate

Reviewer Name: Steve Taylor RECEIVED AUG 05 1996

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

If synthetic, how is the material made? (please answer here if our database form is blank)

*I do not know how this substance is made so will abstain*

This material should be added to the National List as:

Synthetic Allowed  Prohibited Natural

or,  Non-synthetic (Allowed as an ingredient in organic food)

Non-synthetic (Allowed as a processing aid for organic food)

or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

Please comment on the accuracy of the information in the file:

Any additional comments? (attachments welcomed)

Do you have a commercial interest in this material?  Yes;  No

Signature Steve Taylor Date 8/5/96

Please address the 7 criteria in the Organic Foods Production Act:  
(comment in those areas you feel are applicable)

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;

Virtually none

- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;

Calcium sulfate is a nutrient source for Ca; toxicity observed only at very high doses.

- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;

Virtually none

- (4) the effect of the substance on human health;

Beneficial effect ~~from~~ as source of calcium

- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;

N/A

- (6) the alternatives to using the substance in terms of practices or other available materials; and

Other calcium salts

- (7) its compatibility with a system of sustainable agriculture.



# TAP REVIEWER COMMENT FORM for USDA/NOSB

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: Aug. 5, 1996

Name of Material: Calcium Sulfate

Reviewer Name: JOE MONTECALVO RECEIVED AUG 05 1996

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

Synthetic  
If synthetic, how is the material made? (please answer here if our database form is blank) Seed natural

This material should be added to the National List as:

Synthetic Allowed  Prohibited Natural

or,  Non-synthetic (Allowed as an ingredient in organic food)

Non-synthetic (Allowed as a processing aid for organic food)

or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

- should only be used as a firming agent for canned vegetables general: < 0.1%

Please comment on the accuracy of the information in the file:

good

Any additional comments? (attachments welcomed)

NONE

Do you have a commercial interest in this material?  Yes;  No

Signature [Handwritten Signature]

Date 7/27/96

Please address the 7 criteria in the Organic Foods Production Act:  
(comment in those areas you feel are applicable)

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;

none

- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;

none

- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;

none

- (4) the effect of the substance on human health;

- consumption on a regular basis may lead to intestinal obstruction

- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;

none

- (6) the alternatives to using the substance in terms of practices or other available materials; and

none

- (7) its compatibility with a system of sustainable agriculture.

o.k.

# NOSB Materials Database

1

## Identification

Common Name **Calcium Sulfate** Chemical Name  
Other Names  
Code #: CAS Reg. No. 7778-18-9 Code #: Other  
N. L. Category MSDS  yes  no

## Chemistry

Family  
Composition  $\text{CaSO}_{4,x}\text{H}_2\text{O}$   $\text{CaSO}_4$  OR  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$   
Properties Calcium sulfate is anhydrous or contains two molecules of water of hydration. It occurs as a fine, white to slightly yellow white, odorless powder.  
How Made - From natural sources and as a byproduct in many chemical operations  
GRADES: technical and pure precipitated as the dihydrate

## Use/Action

Type of Use Processing  
Specific Use(s) Nutrient; dietary supplement; yeast food; dough conditioner; firming agent; sequestrant. - in brewing  
Action  
Combinations incanned tomatoes, Sweet peppers, etc. potatoes.

## Status

OFPA  
N. L. Restriction  
EPA, FDA, etc  
Directions  
Safety Guidelines  
Historical status  
International status

# NOSB Materials Database

## OFPA Criteria

2119(m)1: chemical interactions

2119(m)2: toxicity & persistence

2119(m)3: manufacture & disposal consequences

2119(m)4: effect on human health

2119(m)5: agroecosystem biology

2119(m)6: alternatives to substance

2119(m)7: Is it compatible?

References

# TAP REVIEWER COMMENT FORM for USDA/NOSB

Use this page or an equivalent to write down comments and summarize your evaluation regarding the data presented in the file of this potential National List material. Complete both sides of page. Attach additional sheets if you wish.

This file is due back to us by: Aug. 5, 1996

Name of Material: Calcium Sulfate

Reviewer Name: WALTER JEFFERY RECEIVED JUL 29 1996

Is this substance Synthetic or non-synthetic? Explain (if appropriate)

non-synthetic if mined product  
If synthetic, how is the material made? (please answer here if our database form is blank)  
anhydrite, gypsum and hemihydrate are mined products. Some synthetic gypsum is produced from stack gas scrubbing a form phos acid production & is full of impurities

This material should be added to the National List as:

Synthetic Allowed                       Prohibited Natural  
or,  Non-synthetic (Allowed as an ingredient in organic food)  
 Non-synthetic (Allowed as a processing aid for organic food)

or,  this material should not be on the National List

Are there any use restrictions or limitations that should be placed on this material on the National List?

mined product allowed

Please comment on the accuracy of the information in the file:

Any additional comments? (attachments welcomed)

Do you have a commercial interest in this material?  Yes;  No

Signature Walter Jeffery Date 7/27/96

Please address the 7 criteria in the Organic Foods Production Act:  
(comment in those areas you feel are applicable)

- (1) the potential of such substances for detrimental chemical interactions with other materials used in organic farming systems;
- (2) the toxicity and mode of action of the substance and of its breakdown products or any contaminants, and their persistence and areas of concentration in the environment;
- (3) the probability of environmental contamination during manufacture, use, misuse or disposal of such substance;  
*very little*
- (4) the effect of the substance on human health;  
*non-toxic,*
- (5) the effects of the substance on biological and chemical interactions in the agroecosystem, including the physiological effects of the substance on soil organisms (including the salt index and solubility of the soil), crops and livestock;
- (6) the alternatives to using the substance in terms of practices or other available materials; and
- (7) its compatibility with a system of sustainable agriculture.

# NOSB Materials Database

1

## Identification

Common Name **Calcium Sulfate** Chemical Name  
Other Names  
Code #: CAS Reg. No. 7778-18-9 Code #: Other  
N. L. Category MSDS  yes  no

## Chemistry

Family  
Composition  $\text{CaSO}_{4-x}\text{H}_2\text{O}$   
Properties Calcium sulfate is anhydrous or contains two molecules of water of hydration. It occurs as a fine, white to slightly yellow white, oderless powder.  
How Made

## Use/Action

Type of Use Processing  
Specific Use(s) Nutrient; dietary supplement; yeast food; dough conditioner; firming agent; sequestrant.  
Action  
Combinations

## Status

OFPA  
N. L. Restriction  
EPA, FDA, etc  
Directions  
Safety Guidelines  
Historical status  
International status

1 - PRODUCT IDENTIFICATION  
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PRODUCT NAME: CALCIUM SULFATE, DIHYDRATE, POWDER  
FORMULA: CASO4 2H2O  
FORMULA WT:172.17  
CAS NO.: 10101-41-4  
NIOSH/RTECS NO.: EW4150000  
COMMON SYNONYMS: GYPSUM; ALABASTER; C.I. 77231; C.I. PIGMENT WHITE 25  
PRODUCT CODES: 1452  
EFFECTIVE: 05/05/86  
REVISION #01  
PRECAUTIONARY LABELLING  
BAKER SAF-T-DATA(TM) SYSTEM  
HEALTH - 0 NONE  
FLAMMABILITY - 0 NONE  
REACTIVITY - 0 NONE  
CONTACT - 1 SLIGHT

HAZARD RATINGS ARE 0 TO 4 (0 = NO HAZARD; 4 = EXTREME HAZARD).

LABORATORY PROTECTIVE EQUIPMENT

SAFETY GLASSES; LAB COAT

PRECAUTIONARY LABEL STATEMENTS

CAUTION

MAY CAUSE IRRITATION

DURING USE AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY AFTER HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

SAF-T-DATA(TM) STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

2 - HAZARDOUS COMPONENTS  
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COMPONENT% CAS NO.

NOT APPLICABLE  
-----

3 - PHYSICAL DATA  
-----

BOILING POINT: N/AVAPOR PRESSURE(MM HG): N/A

MELTING POINT: N/AVAPOR DENSITY(AIR=1): N/A

SPECIFIC GRAVITY: 2.32 EVAPORATION RATE: N/A

(H2O=1) (BUTYL ACETATE=1)  
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MSDS for CALCIUM SULFATE, DIHYDRATE, POWDER Page 2  
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SOLUBILITY(H2O): MODERATE (1 TO 10 %) % VOLATILES BY VOLUME: 0

APPEARANCE & ODOR: WHITE, ODORLESS POWDER.  
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4 - FIRE AND EXPLOSION HAZARD DATA  
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FLASH POINT (CLOSED CUP: N/A

FLAMMABLE LIMITS: UPPER - N/A % LOWER - N/A %

FIRE EXTINGUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.



SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED  
BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.  
TOXIC GASES PRODUCED

SULFUR DIOXIDE

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5 - HEALTH HAZARD DATA

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CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO

EFFECTS OF OVEREXPOSURE

DUST MAY IRRITATE EYES.

TARGET ORGANS

1 - PRODUCT IDENTIFICATION  
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PRODUCT NAME: CALCIUM SULFATE, 1/2-HYDRATE, POWDER  
FORMULA: CASO4 1/2H2O  
FORMULA WT:145.15  
CAS NO.: 7778-18-9  
COMMON SYNONYMS: PLASTER OF PARIS; DRIED GYPSUM  
PRODUCT CODES: 1463  
EFFECTIVE: 05/22/86  
REVISION #01

PRECAUTIONARY LABELLING  
BAKER SAF-T-DATA(TM) SYSTEM  
HEALTH - 1 SLIGHT  
FLAMMABILITY - 0 NONE  
REACTIVITY - 0 NONE  
CONTACT - 1 SLIGHT

HAZARD RATINGS ARE 0 TO 4 (0 = NO HAZARD; 4 = EXTREME HAZARD).

LABORATORY PROTECTIVE EQUIPMENT

SAFETY GLASSES; LAB COAT

PRECAUTIONARY LABEL STATEMENTS

CAUTION

MAY CAUSE IRRITATION

DURING USE AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY AFTER HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

SAF-T-DATA(TM) STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

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2 - HAZARDOUS COMPONENTS  
-----

COMPONENT% CAS NO.  
NOT APPLICABLE  
-----

3 - PHYSICAL DATA  
-----

BOILING POINT: N/AVAPOR PRESSURE(MM HG): N/A

MELTING POINT: N/AVAPOR DENSITY(AIR=1): N/A

SPECIFIC GRAVITY: N/AEVAPORATION RATE: N/A

(H2O=1) (BUTYL ACETATE=1)

SOLUBILITY(H2O): SLIGHT (0.1 TO 1 %) % VOLATILES BY VOLUME: 0  
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APPEARANCE & ODOR: WHITE, ODORLESS POWDER.  
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4 - FIRE AND EXPLOSION HAZARD DATA  
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FLASH POINT (CLOSED CUP: N/A

FLAMMABLE LIMITS: UPPER - N/A % LOWER - N/A %

FIRE EXTINGUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES

FIREFIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE MODE.  
TOXIC GASES PRODUCED  
SULFUR DIOXIDE

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5 - HEALTH HAZARD DATA

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CARCINOGENICITY: NTP: NO IARC: NO Z LIST: NO OSHA REG: NO  
EFFECTS OF OVEREXPOSURE

DUST MAY IRRITATE SKIN OR EYES.

TARGET ORGANS

NONE IDENTIFIED

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

NONE IDENTIFIED

ROUTES OF ENTRY

NONE INDICATED

EMERGENCY AND FIRST AID PROCEDURES

INGESTION: IF SWALLOWED AND THE PERSON IS CONSCIOUS, IMMEDIATELY GIVE LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION.

INHALATION: IF A PERSON BREATHE IN LARGE AMOUNTS, MOVE THE EXPOSED PERSON TO FRESH AIR. GET MEDICAL ATTENTION.

EYE CONTACT: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET MEDICAL ATTENTION.

SKIN CONTACT: IMMEDIATELY WASH WITH PLENTY OF SOAP AND WATER FOR AT LEAST 15 MINUTES.

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6 - REACTIVITY DATA

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STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID: NONE DOCUMENTED

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MSDS for CALCIUM SULFATE, 1/2-HYDRATE, POWDER Page 3

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INCOMPATIBLES: ALUMINUM, STRONG ACIDS

DECOMPOSITION PRODUCTS: OXIDES OF SULFUR

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7 - SPILL AND DISPOSAL PROCEDURES

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STEPS TO BE TAKEN IN THE EVENT OF A SPILL OR DISCHARGE

WEAR SUITABLE PROTECTIVE CLOTHING. CAREFULLY SWEEP UP AND REMOVE.

DISPOSAL PROCEDURE

DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

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8 - PROTECTIVE EQUIPMENT

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VENTILATION: USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION TO KEEP FUME OR DUST LEVELS AS LOW AS POSSIBLE.

RESPIRATORY PROTECTION: NONE REQUIRED WHERE ADEQUATE VENTILATION CONDITIONS EXIST. IF AIRBORNE CONCENTRATION IS

HIGH, USE AN APPROPRIATE RESPIRATOR OR DUST MASK.

EYE/SKIN PROTECTION: SAFETY GLASSES WITH SIDESHIELDS, PROPER GLOVES ARE RECOMMENDED.

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9 - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA(TM) STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)

SPECIAL PRECAUTIONS

KEEP CONTAINER TIGHTLY CLOSED. SUITABLE FOR ANY GENERAL CHEMICAL STORAGE AREA.

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10 - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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DOMESTIC (D.O.T.)

PROPER SHIPPING NAME CHEMICALS, N.O.S. (NON-REGULATED)

INTERNATIONAL (I.M.O.)

PROPER SHIPPING NAME CHEMICALS, N.O.S. (NON-REGULATED)

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1 - PRODUCT IDENTIFICATION  
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PRODUCT NAME: CALCIUM SULFATE, ANHYDROUS, POWDER

FORMULA: CASO4

FORMULA WT:136.14

CAS NO.: 07778-18-9

COMMON SYNONYMS: ANHYDRITE; ANHYDROUS GYPSUM

PRODUCT CODES: 1458

EFFECTIVE: 05/22/86

REVISION #01

PRECAUTIONARY LABELLING

BAKER SAF-T-DATA(TM) SYSTEM

HEALTH - 1 SLIGHT

FLAMMABILITY - 0 NONE

REACTIVITY - 0 NONE

CONTACT - 1 SLIGHT

HAZARD RATINGS ARE 0 TO 4 (0 = NO HAZARD; 4 = EXTREME HAZARD).

LABORATORY PROTECTIVE EQUIPMENT

SAFETY GLASSES; LAB COAT

PRECAUTIONARY LABEL STATEMENTS

CAUTION

MAY CAUSE IRRITATION

DURING USE AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY AFTER HANDLING. WHEN NOT IN USE KEEP IN TIGHTLY CLOSED CONTAINER.

SAF-T-DATA(TM) STORAGE COLOR CODE: ORANGE (GENERAL STORAGE)  
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2 - HAZARDOUS COMPONENTS  
-----

COMPONENT% CAS NO.

NOT APPLICABLE  
-----

3 - PHYSICAL DATA  
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BOILING POINT: N/A VAPOR PRESSURE(MM HG): N/A

MELTING POINT: 1450 C ( 2642 F) VAPOR DENSITY(AIR=1): N/A

SPECIFIC GRAVITY: 2.96 EVAPORATION RATE: N/A

(H2O=1) (BUTYL ACETATE=1)

SOLUBILITY(H2O): SLIGHT (0.1 TO 1 %) % VOLATILES BY VOLUME: 0  
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APPEARANCE & ODOR: WHITE ODORLESS GRANULES.  
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4 - FIRE AND EXPLOSION HAZARD DATA  
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FLASH POINT (CLOSED CUP: N/A

FLAMMABLE LIMITS: UPPER - N/A % LOWER - N/A %

FIRE EXTINGUISHING MEDIA

USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

SPECIAL FIRE-FIGHTING PROCEDURES