

**JONES-HAMILTON CO.**

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MATERIAL SAFETY DATA SHEET**SECTION 1 IDENTIFICATION**

MANUFACTURER'S NAME / ADDRESS: JONES-HAMILTON CO.
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OR
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PRODUCT NAME: SODIUM BISULFATE, ANHYDROUS GLOBULAR, TECHNICAL

GENERAL OR GENERIC IDENTIFICATION: SODIUM ACID SULFATE, NITRE CAKE, SODIUM HYDROGEN SULFATE

SECTION 2 PRODUCT INGREDIENTS

CHEMICAL FORMULA: NaHSO₄

HAZARDOUS COMPONENTS:

| <u>INGREDIENT</u> | <u>PERCENT (BY WEIGHT)</u> | <u>PEL</u> | <u>TLV</u> |
|-------------------|--------------------------------|------------------|------------------|
| SODIUM BISULFATE | 93.2 | NONE ESTABLISHED | NONE ESTABLISHED |
| SODIUM SULFATE | 6.5 | NONE ESTABLISHED | NONE ESTABLISHED |

SECTION 3 HAZARDOUS HEALTH DATA

PRINCIPLE HEALTH HAZARDS, INCLUDING SIGNIFICANT ROUTES, EFFECTS, AND SYMPTOMS OF OVEREXPOSURE AND MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE MAY BE:

EYE: MILD TO SEVERE IRRITANT. MAY CAUSE BURNS IF NOT FLUSHED WITH WATER.

SKIN: MODERATE IRRITANT. MAY CAUSE BURNS IF NOT FLUSHED WITH WATER.

INHALATION: IRRITANT. MAY IRRITATE OR BURN NOSE, THROAT AND LUNGS. NO EXPOSURE LIMITS ESTABLISHED.

INGESTION: IRRITANT. MAY IRRITATE OR BURN MOUTH, ESOPHAGUS OR STOMACH.

CARCINOGENICITY: NOT LISTED AS CARCINOGEN BY NTP, IARC OR OSHA.

SECTION 4 FIRST AID

IN EYES: IMMEDIATELY FLUSH WITH WATER FOR FIFTEEN (15) MINUTES, LIFTING EYELIDS TO THOROUGHLY FLUSH. GET PROMPT MEDICAL ATTENTION.

ON SKIN: IMMEDIATELY FLUSH WITH WATER FOR FIFTEEN (15) MINUTES. IF BURN OCCURS, OBTAIN MEDICAL HELP.

ASTRO PRODUCT CODE # 15009

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IF INHALED: MOVE TO FRESH AIR LOCATION. IF IRRITATION OR DISCOMFORT PERSISTS, SEEK MEDICAL ATTENTION.

IF SWALLOWED: DRINK LARGE QUANTITIES OF MILK OR WATER. FOLLOW WITH MILK OF MAGNESIA, BEATEN EGGS OR VEGETABLE OIL. DO NOT INDUCE VOMITING. CONTACT PHYSICIAN IMMEDIATELY.

SECTION 5 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: NOT APPLICABLE, WILL NOT BURN.

EXPLOSIVE LIMITS:
(UPPER): NOT APPLICABLE
(LOWER): NOT APPLICABLE

EXTINGUISHING MEDIA: WATER OR DRY CHEMICAL AS APPROPRIATE FOR COMBUSTIBLES IN AREA. AVOID WATER CONTACT TO MATERIAL IF POSSIBLE.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: AT TEMPERATURES OVER 806° F, PRODUCT WILL DECOMPOSE, GENERATING OXIDES OF SULFUR.

UNUSUAL FIRE AND EXPLOSION HAZARDS: PRODUCT READILY DISSOLVES IN WATER TO FORM A WEAK SULFURIC ACID SOLUTION. NO GASES OR TOXIC FUMES ARE EMITTED FROM THIS REACTION, BUT PRECAUTIONS FOR EXPOSURE TO SULFURIC ACID SHOULD BE FOLLOWED.

SPECIAL FIRE FIGHTING PROCEDURES: IF WATER IS USED TO EXTINGUISH COMBUSTIBLES AND PRODUCT IS DISSOLVED IN WATER FORMING SULFURIC ACID, WEAR ACID PROTECTIVE EQUIPMENT. IF ELEVATED TEMPERATURES (> 570°F) ARE REACHED, SELF-CONTAINED BREATHING APPARATUS SHOULD BE WORN.

SECTION 6 SPILL OR LEAK PROCEDURES

SMALL SPILLS: MATERIAL IS GRANULAR PRODUCT AND CAN BE SWEEPED UP FROM SURFACES.

LARGE SPILLS: PICK UP AS MUCH MATERIAL AS POSSIBLE WITH SHOVEL OR OTHER TOOL. NEUTRALIZE BALANCE OF SPILL WITH WEAK ALKALINE SOLUTION AND WASH DOWN TO SEWER IF FEDERAL, STATE OR LOCAL REGULATIONS PERMIT.

SECTION 7 SAFE HANDLING AND STORAGE

- AVOID CONTACT WITH SKIN, EYES OR CLOTHING.
- DO NOT STORE WHERE EXPOSED TO MOIST CONDITIONS OR NEAR STRONG ALKALIS.
- KEEP CONTAINERS TIGHTLY CLOSED.
- WEAR ALL RECOMMENDED PROTECTIVE EQUIPMENT WHEN HANDLING.

SECTION 8 PERSONAL PROTECTION DATA

VENTILATION: LOCAL VENTILATION TO A DUST COLLECTOR IS RECOMMENDED.

RESPIRATORY PROTECTION: NIOSH OR MSA CERTIFIED DUST MASK SHOULD BE WORN WHILE HANDLING PRODUCT TO CONTROL EXPOSURE BELOW NUISANCE DUST LIMITS OF 10 MG/M³.

PROTECTIVE GLOVES: WEAR ACID RESISTANT GLOVES SUCH AS RUBBER OR NEOPRENE.

EYE PROTECTION: SAFETY GLASSES OR GOGGLES.

OTHER PROTECTIVE EQUIPMENT: CLOTHES SHOULD COMPLETELY COVER SKIN TO AVOID SKIN CONTACT. COATS, COVERALLS OR APRONS ARE RECOMMENDED.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| <u>PROPERTY</u> | <u>VALUE</u> |
|------------------|---------------|
| MELTING POINT | 350° F |
| BULK DENSITY | 83 LB / CU FT |
| SOLUBILITY | 100% |
| PERCENT VOLATILE | NON-VOLATILE |

DESCRIPTION: OFF-WHITE, BEAD-LIKE, GRANULAR DRY MATERIAL.

SECTION 10 REACTIVITY DATA

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH STRONG ALKALINE MATERIALS SUCH AS CAUSTIC. REACTS WITH WATER TO FORM WEAK SULFURIC ACID SOLUTION. **DO NOT MIX** WITH LIQUID CHLORINE BLEACH, AMMONIA CLEANSERS OR SIMILAR PRODUCTS.

CONDITIONS TO AVOID: STORE IN DRY AREA TO AVOID MOISTURE CONTACT.

HAZARDOUS DECOMPOSITION: NONE, UNLESS HEATED OVER 806° F, AT WHICH SULFUR DIOXIDE AND SULFUR TRIOXIDE ARE FORMED.

SECTION 11 TOXICOLOGICAL INFORMATION

NOTES TO PHYSICIAN:

EYES: NATURAL WATERING OF EYES WILL DISSOLVE SODIUM BISULFATE, FORMING A WEAK SULFURIC ACID SOLUTION WHICH MAY CAUSE BURNS. FLUSH EFFECTED AREA THOROUGHLY WITH WATER. **DO NOT USE** CHEMICAL ANTIDOTES OR NEUTRALIZING SOLUTIONS.

SKIN: MILD BURNS MAY OCCUR IF NOT THOROUGHLY FLUSHED PREVIOUSLY.

INHALATION: MILD BURNING SENSATIONS MAY OCCUR TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

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INGESTION: BODY WATER CONTENT WILL REACT WITH SODIUM BISULFATE TO FORM A WEAK SULFURIC ACID SOLUTION, WHICH MAY BURN TISSUES IN MOUTH, ESOPHAGUS OR STOMACH. SOLUTION SHOULD BE DILUTED TO REDUCE BURNING EFFECT.

SECTION 12 ECOLOGICAL INFORMATION

ANIMAL TEST DATA: 1) LD₅₀ RAT 2800 MG / KG.
 2) THIS MATERIAL IS NEITHER CORROSIVE NOR DESTRUCTIVE TO THE SKIN OF NEW ZEALAND RABBITS. OCCASIONALLY, A VERY SLIGHT RASH MAY APPEAR.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 14 TRANSPORTATION INFORMATION

HAZARD CLASSIFICATION (DOT): NOT CLASSIFIED AS HAZARDOUS

SECTION 15 REGULATORY INFORMATION

CAS NUMBER: 7681-38-1

NIOSH REGISTRY NO.: UNKNOWN

OTHER REGISTRIES: ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPREVIEWS, CASREACT, CEN, CHEMINFORMRX, CHEMLIST, CBNB, CIN, CJACS, CSChem, CSNB, DETHERM, DIPPR, DSL, EINECS, EMBASE, GMELIN, HSDS, IFICDB, IFIPAT, IFIUDB, IPA, JANAF, MEDLINE, MRCK, MSDS-OHS, MSDS-PEST, MSDS-SUM, PDLCOM, PIRA, PNI, PROMT, RTECS, TOXLINE, TOXLIT, TRCOTHERMO, TSCA, USAN, VTB.

OSHA HAZARD COMMUNICATIONS HEALTH HAZARD CLASSIFICATION: IRRITANT

SECTION 312 OR SARA TITLE III HAZARD CATEGORY: ACUTE

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATING:

| <u>HEALTH</u> | <u>FLAMMABILITY</u> | <u>REACTIVITY</u> | <u>PROTECTIVE EQUIPMENT</u> |
|---------------|---------------------|-------------------|-----------------------------|
| 1 | 0 | 1 | F |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATING:

| <u>HEALTH</u> | <u>FLAMMABILITY</u> | <u>REACTIVITY</u> | <u>SPECIAL NOTICE</u> |
|---------------|---------------------|-------------------|-----------------------|
| 1 | 0 | 1 | NONE |

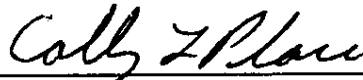
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SECTION 16**MISCELLANEOUS INFORMATION**

THE DATA IN THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL IN ANY PROCESS. THE INFORMATION SET FORTH HEREIN IS FURNISHED FREE OF CHARGE AND IS BASED ON TECHNICAL DATA THAT JONES-HAMILTON CO. BELIEVES TO BE RELIABLE. IT IS INTENDED FOR USE BY PERSONS HAVING TECHNICAL SKILL AND AT THEIR OWN DISCRETION AND RISK. SINCE CONDITIONS OF USE ARE OUTSIDE OUR CONTROL, WE MAKE NO WARRANTIES, EXPLICIT OR IMPLIED, AND ASSUME NO LIABILITY IN CONNECTION WITH ANY USE OF THIS INFORMATION. NOTHING HEREIN IS TO BE TAKEN AS A LICENSE TO OPERATE UNDER OR A RECOMMENDATION TO INFRINGE ANY PATENTS.

DATE OF LAST REVISION: AUGUST 1996

SIGNATURE / TITLE OF PREPARER:



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