

CANADA COLORS & CHEMICALS LTD
152 KENNEDY ROAD SOUTH
BRAMPTON, ONTARIO,
CANADA L6W 3G4
(905) 459-1232;

PRODUCT: SODIUM THIOSULPHATE CRY.PENTA

CODE: 876001

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER..... ESSECO USA LLC
4 GATEHALL
GATEHALL IV
PARSIPPANY, NJ 07054
USA
PREPARED BY..... Regulatory Affairs
PREPARATION DATE..... Dec30/14
PRODUCT NAME..... SODIUM THIOSULPHATE CRY.PENTA
PRODUCT CODE..... 876001
CHEMICAL FORMULA..... NA₂S₂O₃ (ANHYDROUS); NA₂S₂O₃.5H₂O (PENTAHYDRATE).
MOLECULAR WEIGHT..... N.AV.
CHEMICAL FAMILY..... N.AV.
MATERIAL USE..... REFER TO TECHNICAL LITERATURE.
EMERGENCY PHONE NO..... (416)-444-2112.

Section 02: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route, Species	LC/50 Route, Species
AS PER GRADE: SODIUM THIOSULPHATE ; CAS 7772-98-7 (ANHYDROUS) ; CAS 10102-17-7 (PENTAHYDRATE)	100	SEE SECTION 11	---	SEE SECTION 11	SEE SECTION 11

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... DUST OR MIST MAY CAUSE IRRITATION FROM PROLONGED CONTACT. AQUEOUS SOLUTIONS MAY CAUSE IRRITATION FROM REPEATED OR PROLONGED CONTACT.
SKIN ABSORPTION..... N.AV.
EYE CONTACT..... DUST MIST OR SOLUTION MAY IRRITATE OR BURN THE EYES AND CAUSE TEMPORARY CONJUNCTIVITIS.
INHALATION..... INHALATION OF DUST OR MIST MAY IRRITATE THE RESPIRATORY TRACT. IF HEATED TO THE POINT WHERE SULPHUR DIOXIDE GAS IS DRIVEN OFF, THEN THIS GAS IS HIGHLY IRRITATING TO THE RESPIRATORY TRACT. CONTACT WITH ACIDS RELEASES SULFUR DIOXIDE AND/OR HYDROGEN SULFIDE GAS WHICH MAY BE HARMFUL OR DEADLY IF INHALED.
INGESTION..... MAY IRRITATE GASTROINTESTINAL TRACT CAUSING PURGING IF LARGE QUANTITY INGESTED. GENERALLY CONSIDERED LOW TOXICITY.
EFFECTS OF ACUTE EXPOSURE..... LOW TOXICITY.
EFFECTS OF CHRONIC EXPOSURE..... N.AV.

Section 04: FIRST AID MEASURES

INSTRUCTIONS:..... INHALATION: REMOVE TO FRESH AIR. IF SHORT OF BREATH, GIVE OXYGEN, PROVIDED A QUALIFIED OPERATOR IS AVAILABLE. IF SYMPTOMS PERSIST, GET PROMPT MEDICAL ATTENTION. INGESTION: IF CONSCIOUS, IMMEDIATELY RINSE MOUTH AND GIVE ONE GLASS OF WATER TO DRINK. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. GET MEDICAL ATTENTION. SKIN: WASH WITH PLENTY OF SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. CONSULT A PHYSICIAN IF IRRITATION PERSISTS. EYES: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTACT LENSES. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

Section 05: FIRE FIGHTING MEASURES

FLAMMABILITY..... SEE FLASH POINT.
IF YES, UNDER WHICH CONDITIONS?..... HEATING ABOVE 100 C YIELDS A FLAMMABLE RESIDUE SODIUM SULPHIDE.
EXTINGUISHING MEDIA..... N.AV.
SPECIAL PROCEDURES..... WEAR SELF-CONTAINED, NIOSH-APPROVED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING INCLUDING FACE AND EYE PROTECTION. USE WATER SPRAY TO KEEP FIRE EXPOSED CONTAINERS (IF WATERPROOF) COOL AND TO KNOCK DOWN FUMES.
FLASH POINT (C), METHOD..... N.AP.
AUTO IGNITION TEMPERATURE..... N.AP.

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Section 05: FIRE FIGHTING MEASURES

UPPER FLAMMABLE LIMIT (% BY VOL.).... N.AP.
 LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
 EXPLOSION DATA
 EXPLOSIVE POWER..... N.AV.
 RATE OF BURNING..... N.AV.
 SENSITIVITY TO STATIC DISCHARGE..... N.AV.
 SENSITIVITY TO IMPACT..... N.AP.
 HAZARDOUS COMBUSTION PRODUCTS.. SEE HAZARDOUS DECOMPOSITION PRODUCTS.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... ALWAYS WEAR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT. PROMPTLY SHOVEL OR SWEEP UP DRY CHEMICAL WITH MINIMUM OF DUSTING AND PLACE IN EMPTY CONTAINER WITH COVER. CAUTIOUSLY SPRAY RESIDUE WITH PLENTY OF WATER TO COMPLETE CLEAN-UP.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND AVOID CONTACT WITH SKIN, EYES AND CLOTHING. AVOID BREATHING DUST OR EQUIPMENT MIST. USE GOOD PERSONAL HYGIENE AND HOUSEKEEPING.
 STORAGE NEEDS..... STORE IN A COOL, DRY AREA, AWAY FROM ACIDS OR OXIDIZERS. KEEP CONTAINER CLOSED WHEN NOT IN USE.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... SEE BELOW.
 RESPIRATORY/TYPE..... FOR DUSTY OR MISTY CONDITIONS WEAR A NIOSH-APPROVED DUST OR MIST RESPIRATOR. IF SULPHUR DIOXIDE SHOULD BE RELEASED WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OR SUPPLIED-AIR RESPIRATOR OR ALTERNATE CHOICE APPROVED FOR THIS GAS.
 EYE/TYPE..... FOR DUSTY OR MISTY EXPOSURE, WEAR CHEMICAL SAFETY GOGGLES AND HARD HAT (OR OTHER HEAD COVERING). DO NOT WEAR CONTACT LENSES. EYES MUST BE PROTECTED IF DISSOLVING THIS MATERIAL IN WATER.
 FOOTWEAR/TYPE..... N.AV.
 CLOTHING/TYPE..... WEAR FULL WORK CLOTHING, INCLUDING LONG SLEEVED SHIRT, TROUSERS AND COTTON GLOVES FOR DRY PRODUCT HANDLING. THESE SHOULD BE EXCHANGED FOR IMPERVIOUS ONES FOR SOLUTIONS OR WHERE CONTACT IS REPEATED.
 OTHER/TYPE..... PROVIDE EYE-WASH FACILITIES CONVENIENT TO AREAS OF USE OR HANDLING.
 ENGINEERING CONTROLS..... PROVIDE LOCAL EXHAUST IF DUSTY OR MISTY CONDITIONS PREVAIL OR IF THERE IS RELEASE OF SULFUR DIOXIDE GAS. KEEP INCOMPATIBLE MATERIALS OUT OF HOOD, DUCTS, ETC.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... CLEAR TO WHITE GRANULES OR CRYSTALS. SOLID.
 ODOUR..... ODOURLESS.
 ODOUR THRESHOLD..... N.AP.
 VAPOUR PRESSURE (MMHG)..... N.AP.
 VAPOUR DENSITY (AIR=1)..... N.AP.
 EVAPORATION RATE..... N.AP.
 BOILING POINT..... N.AP.
 MELTING POINT (C)..... 48 C (PENTAHYDRATE).
 PH..... 8.6 (7.5% SOLN).
 SPECIFIC GRAVITY (WATER=1)..... ANHYDROUS: 1.667. HYDRATE: 1.68.
 SOLUBILITY IN WATER (% W/W)..... ANHYDROOUS: 33% @ 0 C. HYDRATE: 42% @ 0 C.
 COEFFICIENT OF WATER/OIL DIST..... N.AV.

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:
 YES..... STABLE.
 NO, WHICH CONDITIONS?..... HIGH TEMPERATURES (ABOVE 100 C); YIELD SULFUR DIOXIDE GAS AND HAZARDOUS RESIDUE.
 COMPATABILITY WITH OTHER SUBSTANCES:
 YES
 NO, WHICH ONES?..... STRONG OXIDIZERS CAUSE VIGOROUS EXOTHERMIC REACTIONS. ACIDS RELEASE SULFUR DIOXIDE GAS. WATER-REACTIVE MATERIALS SUCH AS SODIUM, CAUSE STRONG EXOTHERMIC REACTION WITH THE HYDRATE. A VIOLENT REACTION OCCURS WITH SODIUM NITRITE WHEN WATER OF CRYSTALLIZATION HAS BEEN DRIVEN OFF BY HEATING.

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Section 10: STABILITY AND REACTIVITY

REACTIVITY CONDITIONS?..... SEE ABOVE.
 HAZARDOUS PRODUCTS OF DECOMPOSITION SULFUR DIOXIDE GAS WHICH IS TOXIC, CORROSIVE AND AN OXIDIZER IS DRIVEN OFF ABOVE 100 C LEAVING A SODIUM SULFIDE RESIDUE WHICH IS FLAMMABLE, A STRONG IRRITANT TO SKIN AND TISSUE AND IS ALSO INCOMPATIBLE WITH ACIDS.
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL..... NONE ESTABLISHED FOR PRODUCT. TLV: 5 MG/M3 FOR SO2. STEL: 10 MG/M3 FOR SO2.
 LC 50 OF MATERIAL, SPECIES & ROUTE.. N.AV.
 LD 50 OF MATERIAL, SPECIES & ROUTE.. LOW TOXICITY.
 CARCINOGENICITY OF MATERIAL..... N.AV.
 REPRODUCTIVE EFFECTS..... N.AV.
 IRRITANCY OF MATERIAL..... SEE SECTION 03.
 SENSITIZING CAPABILITY OF MATERIAL. N.AV.
 SYNERGISTIC MATERIALS..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

AQUATIC TOXICITY..... DAPHNIA MAGNA, LC50, 48 HOURS, 520 MG/L; WESTERN MOSQUITOFISH, LC50, 96 HOURS, 24,000 MG/L.
 BIODEGRADATION..... N.AP.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE OF WASTE CONSISTENT WITH THE REQUIREMENTS OF LOCAL AND/OR PROVINCIAL WASTE DISPOSAL AUTHORITIES.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... NOT REGULATED.
 SPECIAL SHIPPING INSTRUCTIONS..... N.AP.

Section 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION..... D2B.
 CPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

Section 16: OTHER INFORMATION

N.AV.=NOT AVAILABLE
 N.AP.=NOT APPLICABLE