

# **Material Safety Data Sheet**

Transportation Emergency: 1-800-451-8346

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SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CATALOG #: 4H48-5-01

NAME: N-CHLOROSUCCINIMIDE

SECTION 2. ---- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS NUMBER: 128-09-6

MOLECULAR FORMULA: C<sub>4</sub>H<sub>4</sub>ClNO<sub>2</sub>

MOLECULAR WEIGHT: 133.53

SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

HARMFUL.

HARMFUL IF SWALLOWED.

CORROSIVE.

CAUSES SKIN BURNS AND EYE DAMAGE.

IRRITANT.

IRRITANT TO RESPIRATORY TRACT, TO SKIN AND EYES.

SECTION 4. ----- FIRST-AID MEASURES-----

ORAL EXPOSURE

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CONSULT A PHYSICIAN.

EYE EXPOSURE

ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS. CALL A POISON CENTER. CONTINUE RINSING EYES DURING TRANSPORT TO HOSPITAL. DERMAL EXPOSURE

IN CASE OF CONTACT, WASH SKIN IMMEDIATELY WITH SOAP AND COPIOUS AMOUNTS OF WATER. CONSULT A PHYSICIAN.

## SECTION 5. ----- FIRE FIGHTING MEASURES -----

#### **EXTINGUISHING MEDIA**

SUITABLE: FOR SMALL (INCIPIENT) FIRES, USE MEDIA SUCH AS "ALCOHOL" FOAM, DRY CHEMICAL, OR CARBON DIOXIDE. FOR LARGE FIRES, APPLY WATER FROM AS FAR AS POSSIBLE. USE VERY LARGE QUANTITIES (FLOODING) OF WATER APPLIED AS A MIST OR SPRAY; SOLID STREAMS OF WATER MAY BE INEFFECTIVE. COOL ALL AFFECTED CONTAINERS WITH FLOODING QUANTITIES OF WATER. FIREFIGHTING

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. SPECIFIC METHOD(S) OF FIRE FIGHTING: USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

SPECIFIC HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

#### SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

EVACUATE PERSONNEL TO A SAFE PLACE.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES. AVOID FORMATION OF DUST. AVOID BREATHING DUST, VAPORS, MIST OR GAS. ENSURE ADEQUATE VENTILATION.

**ENVIRONMENTAL PRECAUTIONS** 

DO NOT LET PRODUCT ENTER DRAINS.

METHODS FOR CLEANING UP

SWEEP UP MATERIAL AND DISPOSE OF AS HAZARDOUS WASTE. PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS.

## SECTION 7. ----- HANDLING AND STORAGE-----

#### HANDLING

USER EXPOSURE: AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS. PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED. NORMAL MEASURES FOR PREVENTIVE FIRE PROTECTION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.

#### STORAGE

SUITABLE: KEEP TIGHTLY CLOSED. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. STORE IN A COOL DRY PLACE. STORE UNDER NITROGEN. LIGHT SENSITIVE. AVOID DIRECT SUNLIGHT. MOISTURE SENSITIVE. STORE UNDER NITROGEN.

## SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

#### **ENGINEERING CONTROLS**

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

#### PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE

APPROPRIATE USE A DUST MASK TYPE N95 (US) OR TYPE P1 (EN 143) RESPIRATOR.

USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE

GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

HAND: HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. WASH AND DRY HANDS.

EYE: TIGHTLY FITTING CHEMICAL SAFETY GOGGLES.

#### GENERAL HYGIENE MEASURES

WASH HANDS THOROUGHLY AFTER HANDLING. AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

#### SECTION 9. ---- PHYSICAL AND CHEMICAL PROPERTIES -----

#### APPEARANCE AND ODOR

SOLID

PHYSICAL PROPERTIES

MELTING POINT: 144 - 146 °C FLASH POINT: >110 °C

DENSITY: 1.65 g/ml @ 20 °C

## SECTION 10. -----STABILITY AND REACTIVITY -----

#### **STABILITY**

STABLE: STABLE UNDER RECOMMENDED CONDITIONS.

CONDITIONS TO AVOID: OPEN FIRE AND FLAMES, EXTREMES OF TEMPERATURE, MOISTURE AND DIRECT SUNLIGHT.

MATERIALS TO AVOID: STRONG OXIDIZING AGENTS, STRONG ACIDS, STRONG BASES, AMINES, AMMONIA, IRON AND IRON SALTS.

#### HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON OXIDES, HYDROGEN CHLORIDE GAS, NITROGEN OXIDES.

#### SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

#### ROUTE OF EXPOSURE

INHALATION: MAY BE HARMFUL IF INHALED. MATERIAL IS EXTREMELY DESTRUCTIVE TO THE TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

INGESTION: HARMFUL IF SWALLOWED.

SKIN: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION AND SKIN BURNS.

EYES: CAUSES SEVERE EYE BURNS.

#### SIGNS AND SYMPTOMS OF EXPOSURE

COUGH, SHORTNESS OF BREATH, HEADACHE, NAUSEA, VOMITTING.

TO THE BEST OF OUR KNOWLEDGE, THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN FULLY DETERMINED.

## SECTION 12. ----- ECOLOGICAL INFORMATION -----DATA NOT YET AVAILABLE. SECTION 13. ----- DISPOSAL CONSIDERATIONS -----APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. SECTION 14. ----- TRANSPORT INFORMATION -----DOT UN3261 - HC: 8 - PG: II SECTION 15. ----- REGULATORY INFORMATION -----EU ADDITIONAL CLASSIFICATION SYMBOL OF DANGER: C, Xn, Xi INDICATION OF DANGER: CORROSIVE. HARMFULL. IRRITANT. RISK STATEMENTS: 22-34-36/37/38 SAFETY STATEMENTS: 3/7-13-22-24/25-26-36/37/39-45 US CLASSIFICATION AND LABEL TEXT TSCA: LISTED ON TSCA INVENTORY; FOR R&D USE ONLY SECTION 16. ----- OTHER 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. SYNQUEST LABS, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.