

SynQuest Laboratories, Inc.

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Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

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

CATALOG #: 1100-5-40M1B NAME: CHLOROFORM-D >99.80 ATOM % D 0.03% TMS

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

CAS NUMBER: 865-49-6 MDL NUMBER: MFCD00000827 MOLECULAR FORMULA: CDCl₃ MOLECULAR WEIGHT: 120.38

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

LABEL PRECAUTIONARY STATEMENTS TOXIC. TOXIC IF INHALED. SUSPECTED OF CAUSING CANCER. SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD. CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. HARMFUL. HARMFUL. HARMFUL IF SWALLOWED. IRRITANT. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

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

ORAL EXPOSURE IF SWALLOWED, WASH OUT MOUTH WITH COPIOUS AMOUNTS OF WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. INHALATION EXPOSURE IF INHALED, REMOVE EXPOSED TO FRESH AIR. IF BREATHING IS DIFFICULT, CALL A PHYSICIAN. DERMAL EXPOSURE IN CASE OF EXPOSURE, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. CALL A PHYSICIAN. EYE EXPOSURE IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS, CALL A PHYSICIAN.

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

FLASH POINT

NOT ESTABLISHED.

EXTINGUISHING MEDIA

SUITABLE: WATER SPRAY, ALCOHOL RESISTANT FOAM, DRY CHEMICAL, OR CARBON DIOXIDE. 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 HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

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

PERSONAL PROTECTION

AVOID BREATHING VAPOR MIST, OR GAS. ENSURE ADEQYATE VENTILATION. WEAR PROTECTIVE EQUIPMENT INCLUDING RUBBER GLOVES, AND EYE PROTECTION. KEEP UNPROTECTED PERSONS AWAY. NORMAL MEASURES OF PREVENTIVE FIRE PROTECTION.

ENVIRONMENTAL PROTECTION

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. TAKE PRECAUTIONS TO ENSURE PRODUCT DOES NOT CONTAMINATE THE GROUND OR ENTER THE DRAINAGE SYSTEM.

COLLECTION

ABSORB ON DRY SAND OR VERMICULITE, SWEEP UP AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS.

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

HANDLING

USER EXPOSURE: AVOID INHALATION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

STORAGE

SUITABLE: TIGHTLY CLOSED CONTAINERS IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. STORE IN COOL PLACE. HYGROSCOPIC. STORE UNDER INERT GAS. LIGHT SENSITIVE. AVOID DIRECT SUNLIGHT.

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

ENGINEERING CONTROLS

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE A FULL-FACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

HAND: PROTECTIVE GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. EYE: CHEMICAL SAFETY GOGGLES.

GENERAL HYGIENE MEASURES

WASH THOROUGHLY AFTER HANDLING.

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

APPEARANCE AND ODOR

LIQUID.	
PHYSICAL PROPERTIES	
MELTING POINT:	-64 °C
BOILING POINT:	60.9 °C
REFRACTIVE INDEX:	1.444 @ 20 °C
DENSITY:	1.5 g/mL @ 25 °C

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

STABILITY

STABLE: STABLE UNDER RECOMMENDED STORAGE CONDITIONS. MATERIALS TO AVOID: STRONG OXIDIZING AGENTS, STRONG ACIDS AND BASES. CONDITIONS TO AVOID: HEAT, FLAMES AND SPARKS, EXTREMES OF TEMPERATURE, MOISTURE AND DIRECT SUNLIGHT. HAZARDOUS DECOMPOSITION PRODUCTS

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

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

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

ACUTE TOXICITY MOUSE LD50 (ORAL) 908 mg/kg RABBIT LD50 (DERMAL) 20000 mg/kg RAT LD50 (INHALATION) 47702 mg/m³/4H CARCINOGENICITY THIS PRODUCT IS OR CONTAINS A COMPONENT THAT HAS BEEN REPORTED TO BE PROBABLY CARCINOGENIC BASED ON ITS IARC, OSHA, ACGIH, NTP, OR EPA CLASSIFICATION. THE NATIONAL CANCER INSTITUTE (NCI) HAS FOUND CLEAR EVIDENCE FOR CARCINOGENICITY. LIMITED EVIDENCE OF CARCINOGENICITY IN ANIMAL STUDIES. ROUTE OF EXPOSURE INHALATION: HARMFUL IF INHALED. IRRITATING TO THE RESPIRATORY TRACT. INGESTION: HARMFUL IF SWALLOWED. SKIN: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. EYES: CAUSES EYE IRRITATION.

SIGNS AND SYMPTOMS OF EXPOSURE VOMITING, GASTROINTESTINAL DISTURBANCE, EXPOSURE TO AND/OR CONSUMPTION OF ALCOHOL MAY INCREASE TOXIC EFFECTS. TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

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. OBSERVE ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS. SECTION 14. ----- TRANSPORT INFORMATION -----

UN1888 - HC: 6.1 - PG: III

SECTION 15. ----- REGULATORY INFORMATION -----

EU ADDITIONAL CLASSIFICATION SYMBOL OF DANGER: Xn, Xi INDICATION OF DANGER: HARMFUL. IRRITANT. RISK STATEMENTS: 22-23-36/37/38-40-48/20-63 SAFETY STATEMENTS: 23-24/25-26-36/37/39-38-45 UNITED STATES REGULATORY INFORMATION TSCA: NOT 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.