SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : UV Labeling Reagents DNBC

NAME OF MANUFACTURER : GL Sciences Inc.

ADDRESS : 22-1 Nishishinjuku 6-chome Shinjuku-ku Tokyo 163-1130, Japan

CHARGE SECTION : International Sales Section

TELEPHONE No. : +81-3-5323-6620 FACSIMILE No. : +81-3-5323-6621 PRODUCT No. : 5040-21002 SDS No. : 5040-21002

Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : Classification not possible

OTHER INFORMATIONS : May be harmful if inhaled and ingested.

May cause eye and skin irritation.

Dispose of contents/container in accordance with all applicable regulations.

MOST IMPORTANT HAZARDS : Eye irritation, skin irritation, digestive tract irritation, respiratory tract irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY : 3,5-Dinitrobenzoyl chloride

SYNONYMS : DNBC

CHEMICAL FOMULA : (O2N) 2C6H3COCI

CONTENT : >99%

CAS No. : 99-33-2

TSCA INVENTRY : Not listed

EINECS No. : 202-750-6

EC INDEX No. : Not established

4. FIRST AID MEASURES

GENERAL ADVICE : Wash off immediately with soap and plenty of water. In the case of respirable

dust and/or fumes, use self-contained breathing apparatus and dust

impervious protective suit. Use personal protective equipment.

INHALATION : Move victim to fresh air and gargle. If breathing is difficult, give oxygen.

If irritation persists, consult a physician.

SKIN CONTACT : Remove contaminated clothes and shoes, rinse skin with plenty of water or

shower. Use soap to help assure removal. If irritation persists, consult a

physician.

EYE CONTACT : Remove any contact lenses at once. Flush eyes well with flooding large

amounts of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a

physician.

INGESTION : Rinse mouth, give plenty of water to vomit. Never give anything by mouth to an

unconscious person. Consult a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Carbon dioxide, dry chemical powder, foam, water spray FIRE & EXPLOSION HAZARDS : Toxic and irritating dust, fumes or smoke may be emitted.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

: Fireman should wear normal protective equipment (full bunker gear) and

positive-pressure self-contained breathing apparatus.

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6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS : In case of insufficient ventilation, wear suitable respiratory equipment. Avoid

raising dust and avoid contact with skin and eyes.

ENVIROMENTAL PRECATIONS : Prevent spills from entering sewers, watercourses or low areas.

Comply with local disposal regulations.

METHODS FOR CLEANING UP : Do not touch spilled material without suitable protection. After material is

completely picked up, wash the spill site with soap and water and ventilate the area. Pull all wastes in a plastic bag for disposal and seal it tightly. Remove,

clean, or dispose contaminated clothing.

7. HANDLING AND STORAGE

HANDLING : Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated

exposure. Handle this product with appropriate protective equipments.

STORAGE : Store away from sunlight in a cool place $(2-10^{\circ}\text{C})$.

Keep container tightly closed.

INCOMOPATIBLE PRODUCTS : Strong oxidizers, strong bases

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING MEASURES : Use exhaust ventilation to keep airborne concentrations below exposure limits.

Use adequate ventilation.

VENTILATION : Local Exhaust ; Necessary, Mechanical(General) ; Recommended

PERSONAL PROTECTION

RESPRATORY PROTECTION : Safety mask

HAND PROTECTION : Chemical resistant gloves
EYE PROTECTION : Safety glasses(goggles)
SKIN PROTECTION : Protective clothing

CONTROL PARAMETERS

OSHA PEL : Not established

NIOSH REL : Not established

ACGIH : Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Pale yellow

SHAPE : Powder~crystalline

ODOR : Odorless

pH : No data available BOILING POINT : 196° C(11mmHg)

MELTING POINT : $67-70^{\circ}$ C

FLASH POINT : No data available
FLAMMABILITY : No data available
AUTOIGNITION TEMPERATURE : No data available
VAPOR PRESSURE : No data available
SPACIFIC GRAVITY (DENSITY) : No data available

SOLUBILITY IN

Water : Decompose PARTITION COEFFICIENT : n-octanol/water

Not available

DECOMPOSIION TEMPERATURE : Not available

10. STABILITY AND REACTIVITY

REACTIVITY : It is easy to decompose with moisture.

CHEMICAL STABILITY : Stable under recommended storage conditions.

CONDITION TO AVOID : Sunlight, heat, moisture, CO2, oxidizers, acids

INCOMPATIBILE MATERIALS : Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS

: CO, CO2, nitrogen compounds, chlorine compounds

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11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY : No data available SKIN CORROSION/IRRITATION : No data available EYE DAMAGE/EYE IRRITATION : No data available GERM CELL MUTAGENICITY : No data available CARCINOGENICITY : No data available REPRODUCTIVE TOXICITY : No data available

SPECIFIC TARGET ORGAN TOXICITY

: No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY : No data available BIODEGRADABILITY : No data available BIOACCUMULATION POTENTIAL : No data available MOBILITY IN SOIL : No data available

OTHER ADVERSE EFFECTS : Not listed in Montreal Protocol list.

13. DISPOSAL INFORMATION

Dispose in a hazardous-waste site in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environment agency for specific rules).

14. TRANSPORT INFORMATION

IATA

UN NUMBER : 3261

UN PROPER SHIPPING NAME: Corrosive solid, acidic, organic, n.o.s. (3,5-Dinitrobenzeoyl chloride)

CLASS or DIVISION : 8
PACKING GROUP : II

ADR/RID : 3261, Corrosive solid, acidic, organic, n.o.s. DOT : 3261, Corrosive solid, acidic, organic, n.o.s.

MARINE POLLUTANT : Not classified

15. REGULATORY INFORMATION

US REGULATIONS : Labeling according to EC Directives; See section 2 EU REGURATIONS : Labeling according to EC Directives; See section 2

16. OTHER INFORMATION

NOTICE:

The information contained in the SDS description is applicable exclusively to the chemical substance identified herein and for its intended use as an analytical reference standard or reagent and to the unit quantity intended for that purpose. The information does not relate to, and may not be appropriate for, any application or larger quantity of the substance described. Our products are intended for the use by individuals possessing sufficient technical skill and qualification on use the material potential hazardous chemical. Accordingly, no representation or warranty, express or implied, with respect to merchantability and fitness for a particular purpose is made with respect to the information contained herein.

Attention:

This product in terms of chemical identity and the unit amount provide is intended for use in chemical analysis and not for human consumption, nor any other purpose.