Material Safety Data Sheet

United States English

Section 1. Chemical product and company identification

Product name Amino allyl dUTP; part of 'CyScribe™ Post-Labeling

Kit, $12 \times Cy^{TM}3 + 12 \times Cy^{TM}5'$

Catalogue Number RPN 5660

Component Number NIF1892

Material uses Industrial applications: Analytical chemistry. Research.

Product type Solid.
Validation date 10 May 2011
Print date 10 May 2011

Supplier GE Healthcare UK Ltd

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<u>In case of emergency</u> US ChemTrec (US) 1-800-424-9300

Canada ChemTrec (US) 1-703-527-3887

2. Hazards identification

Physical stateSolid.OdorOdorless

OSHA/HCS status While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR

1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Emergency overview No specific hazard.

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED

INSTRUCTIONS FOR USE ARE FOLLOWED.

Potential acute health effects

Eyes No known significant effects or critical hazards.

Skin No known significant effects or critical hazards.

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may be delayed

following exposure.

Ingestion No known significant effects or critical hazards.

Potential chronic health effects

Chronic effects
 No known significant effects or critical hazards.
 Carcinogenicity
 No known significant effects or critical hazards.
 Mutagenicity
 No known significant effects or critical hazards.
 Teratogenicity
 No known significant effects or critical hazards.
 Developmental effects
 No known significant effects or critical hazards.
 Fertility effects
 No known significant effects or critical hazards.

Inhalation No specific data.
Ingestion No specific data.
Skin No specific data.
Eyes No specific data.

Polical conditions aggravated by None known.

Medical conditions aggravated by

over-exposure

See toxicological information (Section 11)



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3. Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First aid measures

In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation Eye contact

Skin contact Wash with soap and water. Get medical attention if symptoms appear. Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Do not ingest. Get medical attention if symptoms appear. Ingestion

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training.

Section 5. Fire-fighting measures

Flammability of the product No specific fire or explosion hazard.

Extinguishing media

Suitable Use an extinguishing agent suitable for the surrounding fire.

Not suitable None known.

Special exposure hazards Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No

action shall be taken involving any personal risk or without suitable training.

Special protective equipment for

Methods for cleaning up

fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA)

with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding Personal precautions

areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled

material. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas.

Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste

disposal.

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste Small spill

container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be Handling

prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment

before entering eating areas.

Store in accordance with local regulations. Store in original container protected from direct sunlight in a Storage

dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use

appropriate containment to avoid environmental contamination

Section 8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Recommended monitoring

procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any

recommended or statutory limits.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and Hygiene megsures

using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash

stations and safety showers are close to the workstation location.

Personal protection



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assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times

when handling chemical products if a risk assessment indicates this is necessary.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin Personal protective equipment for the body should be selected based on the task being performed and the

risks involved and should be approved by a specialist before handling this product.

Environmental exposure

controls

Eyes

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9. Physical and chemical properties

Physical state Solid.

Flash point [Product does not sustain combustion.]

 Color
 White.

 Odor
 Odorless.

 VOC.
 0 % (w/w)

Solubility Easily soluble in the following materials: cold water and hot water.

Section 10. Stability and reactivity

StabilityThe product is stable.Materials to avoidNo specific data.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions of reactivity

Non-flammable in the presence of the following materials or conditions: open flames, sparks and static

discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible

materials, organic materials, metals, acids, alkalis and moisture.

Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible

materials, organic materials, metals, acids, alkalis and moisture.

Section 11. Toxicological information

Sensitizer

Conclusion/Summary Not available.

Section 12. Ecological information

Environmental effects No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary Not available.

Biodegradability

Conclusion/Summary Not available.

Other adverse effects No known significant effects or critical hazards.

Section 13. Disposal considerations

Waste disposal The generation of waste should be avoided or minimized wherever possible. Significant quantities of

waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil,

waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.



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Section 14. Transport information

International transport regulations

Not classified.

Section 15. Regulatory information

HCS Classification Not regulated.

U.S. Federal regulations TSCA 8(a) IUR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): Not determined.

SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found.

 $\textbf{SARA 311/312 MSDS distribution - chemical inventory - hazard identification:} \ \textbf{No products were found.}$

Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602 Class I

Not listed

Substances

Substances

Clean Air Act Section 602 Class II Not listed

DEA List I Chemicals (Precursor

Chemicals)

Not listed

DEA List II Chemicals (Essential

Chemicals)

Not listed

State regulations

MassachusettsNone of the components are listed.New YorkNone of the components are listed.New JerseyNone of the components are listed.PennsylvaniaNone of the components are listed.

California Prop. 65

United States inventory (TSCA 8b) Not determined.

International regulations

International lists Australia inventory (AICS): Not determined.

China inventory (IECSC): Not determined.

Japan inventory: At least one component is not listed.

Korea inventory: Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined.

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Chemical Weapons Convention List Schedule I Chemicals Not listed

Chemical Weapons Convention List Schedule II Chemicals

Not listed

zisc seriedare ii Griefficais

Not listed

Chemical Weapons Convention List Schedule III Chemicals



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Section 16. Other information

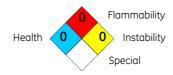
Label requirements

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED

INSTRUCTIONS FOR USE ARE FOLLOWED.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)





Indicates information that has changed from previously issued version.

History

Date of printing10 May 2011Date of previous issueNo previous validation

Date of issue 10 May 2011 **Version** 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



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