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1 Identification

- Product identifier
- · Trade name: Guanfacine-13C,15N3
- · Article number: 30143
- CAS Number: 1189924-28-4
- Application of the substance / the mixture This product is for research use - Not for human or veterinary diagnostic or therapeutic use.
- Details of the supplier of the safety data sheet • Manufacturer/Supplier: Cayman Chemical Co. 1180 E. Ellsworth Rd.
- Ann Arbor, MI 48108 USA
- Information department: Product safety department
 Emergency telephone number: During normal opening times: +1 (734) 971-3335 US/CANADA: 800-424-9300 Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

· Classification of the substance or mixture



GHS06 Skull and crossbones

Acute Toxicity - Oral 3 H301 Toxic if swallowed.

- · Label elements
- · GHS label elements
- The substance is classified and labeled according to the Globally Harmonized System (GHS). Hazard pictograms



Signal word Danger
 Hazard statements
 H301 Toxic if swallowed.

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	nary statements
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
	0 If swallowed: Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P330	Rinse mouth.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/internationa regulations.
 Classifica 	tion system:
· NFPA rati	ngs (scale 0 - 4)
	Health = 2
	Fire = 0
$\mathbf{\mathbf{\nabla}}$	Reactivity = 0
· HMIS-ratin	ngs (scale 0 - 4)
HEALTH	² Health = 2
FIRE	• Fire = 0
REACTIVITY	0 Reactivity = 0
• PBT: Not a	applicable.
• vPvB: Not	applicable. ition/information on ingredients
• vPvB: Not 3 Compos • Chemical	ition/information on ingredients characterization: Substances
· vPvB: Not B Compos · Chemical · CAS No. [applicable. ition/information on ingredients characterization: Substances Description
• vPvB: Not Compos • Chemical • CAS No. E	ition/information on ingredients characterization: Substances
• vPvB: Not • Compos • Chemical • CAS No. E 1189924-2	ition/information on ingredients characterization: Substances Description 8-4 Guanfacine-13C,15N3
 vPvB: Not Compos Chemical CAS No. I 1189924-2 First-aid 	ition/information on ingredients characterization: Substances Description 8-4 Guanfacine-13C,15N3 measures
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 vPvB: Not Compos Chemical CAS No. E 1189924-2 First-aid Descriptic General ir Immediate In case of After inha After skin After skin After swal Informatic Most imponent Indication 	ition/information on ingredients ition/information on ingredients characterization: Substances bescription 8-4 Guanfacine-13C,15N3 measures formation: ly remove any clothing soiled by the product. Irregular breathing or respiratory arrest provide artificial respiration. lation: In case of unconsciousness place patient stably in side position for transportation. contact: Immediately wash with water and soap and rinse thoroughly. contact: Rinse opened eye for several minutes under running water. Then consult a doctor. lowing: Do not induce vomiting; immediately call for medical help. on for doctor: brtant symptoms and effects, both acute and delayed relevant information available.

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5 Fire-fighting measures

- · Extinguishing media
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment. A solid water stream may be inefficient.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to section 13.
- Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- **PAC-2:** Substance is not listed.
- **PAC-3:** Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling Thorough dedusting.
- · Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities Keep container tightly closed.
- Store in accordance with information listed on the product insert.
- · Storage: Store in accordance with information listed on the product insert.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see section 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

· Breathing equipment: Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Not required.

9 Physical and chemical properties

· Information on basic physical and chemical properties · General Information			
· Appearance:			
Form:	Solid		
Color:	Not determined.		
· Odor:	Characteristic		
• Structural Formula	C8[13C]H9Cl2[15N]3O		
• Molecular Weight	250.1 g/mol		
· Odor threshold:	Not determined.		
· pH-value:	Not applicable.		
· Change in condition			
Melting point/Melting range:	Undetermined.		
Boiling point/Boiling range:	Undetermined.		
· Flash point:	Not applicable.		
· Flammability (solid, gaseous):	Product is not flammable.		
· Decomposition temperature:	Not determined.		
· Ignition temperature:	Not determined.		
· Danger of explosion:	Product does not present an explosion hazard.		
· Explosion limits:			
Lower:	Not determined.		
Upper:	Not determined.		
· Vapor pressure:	Not applicable.		
· Density:	Not determined.		
Relative density	Not determined.		
· Vapor density	Not applicable.		
 Evaporation rate 	Not applicable.		
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 Solubility in / Miscibility with Water: 	Not determined.	
· Partition coefficient (n-octanol/v	vater): Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
SOLUBILITY	Methanol: slightly, sonicated	
[.] Other information	No further relevant information available.	

10 Stability and reactivity

· Reactivity No further relevant information available.

- Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- · Incompatible materials: strong oxidizing agents

· Hazardous decomposition products: carbon oxides, hydrogen chloride, nitrogen oxides

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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· Results of PBT and vPvB assessment

- · PBT: Not applicable.
- **vPvB:** Not applicable.

• Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- **Recommendation:** Disposal must be made according to official regulations.

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 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
· Transport/Additional information:	
· DOT · Quantity limitations	On passenger aircraft/rail: 100 kg On cargo aircraft only: 200 kg
 IMDG Limited quantities (LQ) Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· IATA · Remarks:	When sold in quantities of less than or equal to 1 mL or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.
· UN "Model Regulation":	UN 3288 TOXIC SOLID, INORGANIC, N.O.S (GUANFACINE-13C,15N3), 6.1, III

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

- · Sara
- Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

All chemicals may pose unknown hazards and should be used with caution. This SDS applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. Cayman Chemical Company assumes no responsibility for incidental or consequential damages, including lost profits, arising from the use of these data. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to

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· Department issuing SDS: Environment protection department.
· Contact: - · Date of preparation / last revision 05/19/2023
· Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA) PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Toxicity - Oral 3: Acute toxicity – Category 3
* * Data compared to the previous version altered.