

FC09-05AM

N-(3-Trimethoxysilylpropyl)perfluorohexanamide

Revised 06-February-2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name	N-(3-Trimethoxysilylpropyl)perfluorohexanamide
Catalog Number	FC09-05AM
Brand	Fluoryx Labs
CAS Number	154380-34-4

Relevant identified uses of the Substance or mixture and uses advised against

Identified uses:	Laboratory chemicals. Manufacture of substances
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Details of the supplier of the safety data sheet

Company	Fluoryx Labs 3650 Research Way, #22 Carson City, NV 89706 USA +1 (510) 329-9149 (Telephone) +1 (510) 686-8799 (Fax) www.fluoryx.com
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Emergency call (Chemtel):

+01-813-248-0585 (International)
+1-800-255-3924 (USA)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315
 Serious eye irritation (Category 2A), H319
 For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H315
 H319

Causes skin irritation.
 Causes serious eye irritation.

Precautionary statement(s)

P261
 P264
 P280
 P302 + P352

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
 Wash skin thoroughly after handling.
 Wear protective gloves/ eye protection/ face protection.
 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338

P321
P332 + P313
P337+P313
P362+P364

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific treatment (see first aid instructions)
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/attention
Take off contaminated clothing and wash before reuse.

Hazards not otherwise classified (HNOC) or not covered by GHS – Additional methanol may be formed by reaction with moisture and water. The US OSHA PEL (TWA) for methanol is 200 ppm.

3. COMPOSITION AND INFORMATION ON COMPONENTS

Synonyms: N-(3-Trimethoxysilylpropyl)perfluorohexanamide
Chemical Formula: $\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{C}(\text{O})\text{NHCH}_2\text{CH}_2\text{CH}_2\text{Si}(\text{OCH}_3)_3$
 $\text{C}_{12}\text{H}_{16}\text{F}_{11}\text{NO}_4\text{Si}$

Molecular Weight 475.33 g/mole
CAS Number 154380-34-4
EC Number Not known.

Hazardous components

Component	Classification	Concentration
N-(3-Trimethoxysilylpropyl)perfluorohexanamide	Skin Irrit. 2; Eye Irrit. 2A; H315, H319	≤100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician if not feeling well.

In case of skin contact Wash off with soap and plenty of water. Consult a physician.

In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention..

If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed On contact with water, this compound liberates methanol which is known to have a chronic effect on the central nervous system.

5. FIRE FIGHTING MEASURES

Flash Point: No data available.

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Hazards Arising from the Substance/Mixture Carbon oxides, hydrogen fluoride, silicon oxides

Advice for Firefighters Wear self-contained breathing apparatus for firefighting.

Further Information Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Vapors can accumulate in low areas.

For personal protection see section 8.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and Materials For Containment and Cleaning Up Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to Other Sections For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Provide good ventilation in process area to prevent accumulation of vapors. For precautions see section 2.2.

Conditions for Safe Storage: Store in cool, dry, well-ventilated area. Keep container tightly closed.

Incompatible Materials Acids, alcohols, oxidizing agents, peroxides. Slowly hydrolyzes in the presence of water and releases methanol.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Engineering Controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal Protective Equipment
Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection Where risk assessment shows air-purifying respirators are appropriate 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).

Control of environmental exposure Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Form

Liquid

Color

Clear colorless

SAFETY DATA

Boiling Point	122 °C @ 2 mm Hg
Melting Point	No data available
pH	No data available
Odor	Mild methanol
Odor threshold	No data available
Flash Point	No data available
Evaporation rate	No data available
Vapor pressure	No data available
Vapor density	>1 (air = 1)
Ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Density	1.37 g/mL @ 25 °C
Oxidizing properties	No data available
Partition coefficient: n-octane/water	No data available
Solubility in Water	Negligible. Reacts with water.
Viscosity	No data available
Refractive Index	1.360

10. STABILITY AND REACTIVITY

Reactivity	Reacts slowly with water to form a polymer and releases methanol. No other data available.
Chemical Stability:	Stable at normal temperatures and storage conditions.
Possibility of Hazardous Reactions:	No data available
Conditions to Avoid:	May form explosive mixtures in air. Direct sources of heat. Heat, flames and sparks.
Materials to Avoid:	Heat/open flames. Strong oxidizing agents. Water.
Hazardous Decomposition Products:	May evolve carbon dioxide, carbon monoxide, hydrogen fluoride and silicon oxides.
Hazardous Polymerization:	Will not occur. Reacts slowly with water to form a polymer and releases methanol.
Other Information:	No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Oral LD50	No data available
Inhalation LC50	No data available
Dermal LD50	No data available
Other information on acute toxicity	No data available
Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye irritation
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	
IARC:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available
Teratogenicity	No data available
Specific target organ toxicity - single exposure (Globally Harmonized System)	Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure (Globally Harmonized System)	No data available
Aspiration hazard	No data available
Potential health effects	
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes serious eye irritation.
Symptom/effect after ingestion	Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness.
Chronic symptoms	On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system.
Synergistic effects	No data available
Additional Information RTECS	Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.	

12. ECOLOGICAL INFORMATION

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB assessment	No data available
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

Product	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Contact Fluoryx to return unused product.
Contaminated packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. REGULATORY INFORMATION

TSCA Status	Not listed
SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard
Massachusetts Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
New Jersey Right To Know Components	No components are subject to the Massachusetts Right to Know Act.
California Prop. 65 Components	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3.**

Eye Irrit.	Eye irritation.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

HMIS Classification

Health Hazard:	3
Flammability:	1
Physical Hazards:	1

NFPA Rating

Health Hazard:	2
Fire:	1
Reactivity Hazard:	1

Further Information:

For R&D use only. Not for drug, household, or other uses. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. Unless noted to the contrary, the technical information applies only to pure product.

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End of SDS