

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**Product Identifier**

Perihal Produk: **2-Nitrofluorene**  
 Product Description: **2-Nitrofluorene**  
 Cat No. : H55744  
 CAS No 607-57-8  
 Molecular Formula C13 H9 N O2

**Relevant identified uses of the substance or mixture and uses advised against**

Recommended Use Laboratory chemicals.  
 Uses advised against No Information available

**Company**

Thermo Fisher Scientific Fisher Scientific (M) Sdn Bhd  
 Hap Seng Business Park, Lot 01-03, 01-04 Aras 1 Unity Square,  
 No 12, Persiaran Perusahaan, Seksyen 23, 40300 Shah Alam,  
 Selangor Darul Ehsan, Malaysia.  
 Main line: +60 3-5525 7888

**Supplier**

E-mail address Enquiry.my@thermofisher.com

**Emergency Telephone Number**

Tel: +03-5525 7888  
 CHEMTREC Malaysia **1-800-815-308** (Malay)  
 CHEMTREC Malaysia (Kuala Lumpur) **+(60)-327884561** (Malay)

**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

|                          |                   |
|--------------------------|-------------------|
| Carcinogenicity          | Category 2 (H351) |
| Chronic aquatic toxicity | Category 2 (H411) |

**Label Elements**

**Signal Word**
**Warning**
**Hazard Statements**

H351 - Suspected of causing cancer

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H411 - Toxic to aquatic life with long lasting effects

## Precautionary Statements

### Prevention

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

### Response

P308 + P313 - IF exposed or concerned: Get medical advice/attention

### Storage

P403 - Store in a well-ventilated place

### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## Other Hazards

No information available

This product does not contain any known or suspected endocrine disruptors

Toxic to terrestrial vertebrates

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Component       | CAS No   | Weight % |
|-----------------|----------|----------|
| 2-Nitrofluorene | 607-57-8 | <=100    |

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

#### General Advice

If symptoms persist, call a physician.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

#### Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

#### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

#### Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

### Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

### Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

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## Extinguishing media

### **Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

### **Extinguishing media which must not be used for safety reasons**

No information available.

## Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

## **Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

## Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

### Environmental precautions

Do not flush into surface water or sanitary sewer system.

### Methods and Material for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

### Conditions for Safe Storage, Including any Incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Protect from direct sunlight.

### Specific End Uses

Use in laboratories.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### Control Parameters

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## Exposure Controls

### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

## Personal protective equipment

### **Eye Protection**

Goggles

### **Hand Protection**

Protective gloves

### **Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

(Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

### **Recommended Filter type:**

Particulates filter conforming to EN 143

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

When RPE is used a face piece Fit Test should be conducted

## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

## Environmental exposure controls

Prevent product from entering drains Do not allow material to contaminate ground water system

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### **Appearance**

Light yellow

#### **Physical State**

Powder Solid

#### **Odor**

No information available

#### **Odor Threshold**

No data available

#### **pH**

Not applicable

#### **Melting Point/Range**

155 - 158 °C / 311 - 316.4 °F

#### **Softening Point**

No data available

#### **Boiling Point/Range**

No information available

#### **Flash Point**

No information available

**Method -** No information available

#### **Evaporation Rate**

Not applicable

Solid

#### **Flammability (solid,gas)**

No information available

#### **Explosion Limits**

No data available

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|                              |                          |       |
|------------------------------|--------------------------|-------|
| Vapor Pressure               | No data available        |       |
| Vapor Density                | Not applicable           | Solid |
| Specific Gravity / Density   | No data available        |       |
| Bulk Density                 | No data available        |       |
| Water Solubility             | Insoluble                |       |
| Solubility in other solvents | No information available |       |

## Partition Coefficient (n-octanol/water)

|                           |                          |       |
|---------------------------|--------------------------|-------|
| Autoignition Temperature  | No data available        |       |
| Decomposition Temperature | No data available        |       |
| Viscosity                 | Not applicable           | Solid |
| Explosive Properties      | No information available |       |
| Oxidizing Properties      | No information available |       |

|                   |             |
|-------------------|-------------|
| Molecular Formula | C13 H9 N O2 |
| Molecular Weight  | 211.22      |

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

### Chemical Stability

Stable under normal conditions. Light sensitive.

### Possibility of Hazardous Reactions

|                          |                               |
|--------------------------|-------------------------------|
| Hazardous Polymerization | No information available.     |
| Hazardous Reactions      | None under normal processing. |

### Conditions to Avoid

Excess heat. Exposure to light. Incompatible products.

### Incompatible Materials

Strong oxidizing agents. Strong bases.

### Hazardous Decomposition Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

|                     |   |
|---------------------|---|
| Product Information | No acute toxicity information is available for this product |
|---------------------|---|

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(a) acute toxicity;  
Oral No data available  
Dermal No data available  
Inhalation No data available

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;  
Respiratory No data available  
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; Category 2  
The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component       | EU | UK | Germany | IARC     |
|-----------------|----|----|---------|----------|
| 2-Nitrofluorene |    |    |         | Group 2B |

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available  
Target Organs None known.

(j) aspiration hazard; Not applicable  
Solid

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and delayed No information available.

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Persistence and degradability  
Persistence Insoluble in water.  
Degradation in sewage treatment plant Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

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|  |  |
|--|--|
| <b>Bioaccumulative potential</b>       | May have some potential to bioaccumulate   |
| <b>Mobility in soil</b>                | Spillage unlikely to penetrate soil. Is not likely mobile in the environment due its low water solubility. |
| <b>Endocrine Disruptor Information</b> | This product does not contain any known or suspected endocrine disruptors                                  |
| <b>Other adverse effects</b>           | No information available   |

## SECTION 13: DISPOSAL CONSIDERATIONS

|  |  |
|--|--|
| <b>Waste treatment methods</b>             |  |
| <b>Waste from Residues/Unused Products</b> | Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations                              |
| <b>Contaminated Packaging</b>              | Dispose of this container to hazardous or special waste collection point.  |
| <b>Other Information</b>                   | Do not flush to sewer Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains Do not let this chemical enter the environment |

## SECTION 14: TRANSPORT INFORMATION

|                                     |  |
|-------------------------------------|--|
| <b>IMDG/IMO</b>                     |  |
| UN-No                               | UN3077   |
| Hazard Class                        | 9  |
| Packing Group                       | III  |
| Proper Shipping Name                | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 2-Nitrofluorene |
| <b>Road and Rail Transport</b>      |  |
| UN-No                               | UN3077   |
| Hazard Class                        | 9  |
| Packing Group                       | III  |
| Proper Shipping Name                | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 2-Nitrofluorene |
| <b>IATA</b>                         |  |
| UN-No                               | UN3077   |
| Hazard Class                        | 9  |
| Packing Group                       | III  |
| Proper Shipping Name                | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 2-Nitrofluorene |
| <b>Special Precautions for User</b> | No special precautions required                                    |

## SECTION 15: REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

|                                  |   |
|----------------------------------|---|
| <b>International Inventories</b> | X = listed Australia U.S.A. (TSCA) Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) Korea (KECL) China (IECSC) Japan (ENCS) Philippines (PICCS) Taiwan |
|----------------------------------|---|

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(TCSI) Japan (ISHL) New Zealand (NZIoC) Japan (ISHL)

| Component       | EINECS    | TSCA | DSL | PICCS | ENCS | ISHL | IECSC | AICS | KECL |
|-----------------|-----------|------|-----|-------|------|------|-------|------|------|
| 2-Nitrofluorene | 210-138-5 | X    | -   | X     | -    |      | -     | X    | -    |

## National Regulations

**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Prepared By**

**Revision Date**

**Revision Summary**

Health, Safety and Environmental Department

25-Mar-2025

SDS sections updated.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other



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materials or in any process, unless specified in the text

**End of Safety Data Sheet**