

Version: Discofinechem7  
Revision date 26/03/2023

## MATERIAL SAFETY DATA SHEET

### Nitrocefin

#### **SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

##### **1.1 Product identifiers :**

Product name : Nitrocefin

Product number : 0041906869

Brand : Discovery

Reach No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require registration or the registration is envisaged for a later

Registration deadline.

Cas No. : 41906-86-9

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

Identified uses : biochemical research / analysis

##### **1.3 Details of the supplier of the safety data sheet**

Company: Discovery Fine Chemicals Ltd  
Unit 4A, Old Forge Road, Ferndown Ind. Estate,  
Wimborne, Dorset, BH21 7RR.  
United Kingdom

Telephone: +44 (0)1202 874517

Fax: +44 (0)845 0944 385

E-mail: [discovery@discofinechem.com](mailto:discovery@discofinechem.com)

##### **1.4 Emergency telephone : +44 (0)7912 646956**

#### **SECTION 2. HAZARDS IDENTIFICATION**

##### **2.1 Classification of the substance or mixture**

###### **Classification according to Regulation (EC) No 1272/2008**

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Skin sensitization (Category 1), H317

For the full text of the H-Statements mentioned in this section see section 16

###### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

##### **2.2 Label elements**

###### **Labelling according Regulation (EC) No 1272/2008**

###### **Pictogram**



**Signal word:** Danger

###### **Hazard statement(s)**

H228 Flammable solid

H315 Causes skin irritation.

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

**Precautionary statement(s)**

P261 Avoid breathing dust

P264 Wash skin thoroughly after handling

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective clothing and eye protection

P302+P352 If on SKIN wash with plenty of water

P305+P351+P338 If in EYES rinse cautiously with water. Remove contact lenses. Continue rinsing.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Caution : physiologically highly active, therapeutically usable substance. This substance must be handled with care required for hazardous materials.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Formula: C<sub>21</sub>H<sub>16</sub>N<sub>4</sub>O<sub>8</sub>S<sub>2</sub>

Molecular Weight: 516.50 g/mol

Cas No: 41906-86-9

E.C.No: 636-988-0

Component

Nitrocefin

CAS-No.41906-86-9

E.C.No. 636-988-0

Classification

Skin irritation 2. Flammable solid 2.

Eye damage 1 Skin sens 1.

H228, H315, H318, H317

Concentration

<=100%

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

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance.

**If inhaled** - If breathed in, move person into fresh air. Consult a doctor if feeling unwell.

**In case of skin contact** – Remove all contaminated clothing. Rinse skin with water. Consult a physician.

**In case of eye contact** – Flush eyes with water. Remove contact lenses. Call an ophthalmologist.

**If swallowed** – Make victim drink water and consult a doctor

**4.2 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).

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

no data available

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing media** – use water foam, carbon dioxide dry powder (CO<sub>2</sub>)

**Unsuitable extinguishing media** – for this substance no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NO<sub>x</sub>) Sulfur Oxides

Combustible

Fire may cause evolution of: nitrogen oxides and sulfur oxides. Development of hazardous combustion gases.

**5.3 Advice for firefighters** – stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance.

**5.4 Further information** – suppress gases and vapours with a spray jet. Prevent extinguishing water from contaminating surface water

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area. For personal protection see section 8.

**6.2 Environmental precautions** - Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up** – pick up and arrange disposal without creating dust. sweep and shovel up. Keep in suitable closed containers for disposal.

**6.4 Reference to other sections** - For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

For precautions see section 2.2

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -18 °C.

Storage class (TRGS510) : 11 : combustible solids.

### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **8.2 Exposure controls**

**Appropriate 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** - 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

**Body Protection** - Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** -For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

- a) Appearance - Form: powder, Colour: yellow-orange
- b) Odour - no data available
- c) Odour Threshold - no data available
- d) Melting point/range: - 167-169°C
- e) Initial boiling point and boiling range - no data available
- f) Flammability (solid, gas) - no data available
- g) Upper/lower flammability or explosive limits - no data available
- h) Flash point – not applicable

- i) Autoignition temperature - no data available
  - j) Decomposition temperature - no data available
  - k) pH - no data available
  - l) Viscosity – viscosity, kinematic: no data available  
- viscosity dynamic: no data available
  - m) Water solubility – no data but soluble in DMSO
  - n) Partition coefficient: no data available .
  - o) Vapour pressure - no data available
  - p) Density - no data available  
Relative density – no data available
  - q) Relative vapour density - no data available
  - r) Particle characteristics - no data available
  - s) Explosive properties – no data available
  - t) Oxidizing properties - no data available
- 9.2 Other safety information - no data available

## **10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

No data available

### **10.2 Chemical stability**

The product is chemically stable under recommended storage conditions

### **10.3 Possibility of hazardous reactions**

Violent reactions possible with: strong oxidising agents

### **10.4 Conditions to avoid**

no data available

### **10.5 Incompatible materials**

Strong oxidizing agents

### **10.6 Hazardous decomposition products**

In the event of fire see section 5

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

LD50 Oral – no data available

Inhalation – no data available

Dermal – no data available

**Skin corrosion/irritation** - no data available

#### **Serious eye damage/eye irritation**

no data available

#### **Respiratory or skin sensitization**

May cause allergic skin reaction.

#### **Germ cell mutagenicity**

No data available

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

## 11.2 Additional Information

### Endocrine disrupting properties

#### Product

##### Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity - no data available

### 12.2 Persistence and degradability - no data available

### 12.3 Bio-accumulative potential - no data available

### 12.4 Mobility in soil - no data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

#### Product

##### Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself according to notice directive on waste 2008/98/EC.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

1325

### 14.2 UN proper shipping name

ADR/RID: flammable solid, organic, n.o.s (nitrocefin)

IMDG: flammable solid, organic, n.o.s (nitrocefin)

IATA: flammable solid, organic, n.o.s (nitrocefin)

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: - 4.1

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: - III

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA: no

### 14.6 Special precautions for user

#### Further Information

Not classified as dangerous in the meaning of transport regulations

## 15. REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of DIR 94/33/EC on the protection of young people at work

### 15.2 Chemical Safety Assessment –

For this product a chemical safety assessment was not carried out.

## 16. OTHER INFORMATION

### Text of H-code(s) and R-phrase(s) mentioned in Section 2 and 3

H228 Flammable solid

H315 cause skin irritation

H317 may cause an allergic reaction

H318 causes serious eye damage

#### Further information

#### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product.

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## APPENDIX

### ABBREVIATIONS FULL TEXT

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ALARP As low as is reasonably practicable

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging Regulations

COSHH Control of Substances Hazardous to Health EC Number European Community Number

EC50 Effective Concentration 50%

ECHA European Chemicals Agency

ELINCS European List of Notified Chemical Substances

EINECS European Inventory of Existing Commercial Chemical Substances GHS Globally Harmonised System HSE

Health & Safety Executive UK

IATA International Air Transport Association

IM Intramuscular

IMDG The International Maritime Dangerous Goods Code

IP Intraperitoneal

IV Intravascular

LD50 Lethal Dose 50%

LOEC Lowest Observable Effective Concentration

LTEL Long Term Exposure Limit

NOEC No Observable Effective Concentration

OECD Organisation for Economic Cooperations and Development

OSHA European Agency for Safety and Health at work  
PBT Persistent Bioaccumulative and Toxic substance  
PPE Personal Protective Equipment  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail  
SC Subcutaneous  
SDS Safety Data Sheet  
SIEF Substance Information Exchange Forum  
STEL Short Term Exposure Limit  
STOT (RE) Specific Target Organ Toxicity – repeated exposure  
STOT (SE) Specific Target Organ Toxicity – single exposure  
SVHC Substance of Very High Concern  
VOC Volatile Organic Compounds  
vPvB Very Persistent and Very Bioaccumulative  
WEL Workplace Exposure Limits