

**Safety Data Sheet (SDS)** According to the REACH Regulation (EC) No. 1907/2006

Issuing Date: 2014-11-26

Revision Date: 2017-08-01

Version: 3

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product No** 2190  
**Product name** Nocodazole  
**Reach registration number** This substance/mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006.

### Contains

Chemical Name	Index No.	CAS No
nocodazole (90 - 100%)	Not Listed	31430-18-9

<b>Formula</b>	C <sub>14</sub> H <sub>11</sub> N <sub>3</sub> O <sub>3</sub> S
<b>Molecular Weight</b>	301.32 g/mol

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

**Identified uses** For research use only

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

Importer (Applicable in EU only)	Manufacturer
Cell Signaling Technology Europe B.V. Schuttersveld 2 2316 ZA Leiden The Netherlands TEL: +31 (0)71 7200 200 FAX: +31 (0)71 891 0098	Cell Signaling Technology, Inc. 3 Trask Lane Danvers, MA 01923 United States TEL: +1 978 867 2300 FAX: +1 978 867 2400

<b>Website</b>	www.cellsignal.com
<b>E-mail Address</b>	info@cellsignal.eu

### 1.4. Emergency telephone number

**CHEMTREC** 24 hours a day, 7 days a week, 365 days a year  
+1 703 527 3887 (INTERNATIONAL) +1 800 424 9300 (NORTH AMERICA)

**Europe** 112

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

<b>Germ cell mutagenicity</b>	Category 2 - (H341)
<b>Reproductive toxicity</b>	Category 2 - (H361)

For the full text of the H-phrases & EUH-phrases mentioned in this Section, see Section 16

**2.2. Label elements**

**Signal word**  
Warning

**Hazard statement(s)**

H341 - Suspected of causing genetic defects  
H361 - Suspected of damaging fertility or the unborn child

**Precautionary statement(s)**

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P281 - Use personal protective equipment as required  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P405 - Store locked up  
P501 - Dispose of contents/container to an approved waste disposal plant

**2.3. Other hazards**

None under normal use conditions

## SECTION 3: Composition/information on ingredients

**3.1 Substances****Synonyms**

Oncodazole; Methyl 5-(2-thenoyl)-2-benzimidazolecarbamate; Carbamic acid, (5-(2-thienylcarbonyl)-1H-benzimidazol-2-yl)-, methyl ester; 2-Benzimidazolecarbamic acid, 5-(2-thenoyl)-, methyl ester (8Cl).

**Formula**

C<sub>14</sub>H<sub>11</sub>N<sub>3</sub>O<sub>3</sub>S

**Chemical nature**

Monoconstituent substance.

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
nocodazole	31430-18-9	100	250-626-5	Muta. 2 (H341) Repr. 2 (H361)	no data available

*For the full text of the R-phrases mentioned in this Section, see Section 16*

## SECTION 4: First aid measures

**4.1. Description of first aid measures****General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Immediate medical attention is required. Move to fresh air. If not breathing, give artificial respiration.

**Skin contact**

Immediate medical attention is required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

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<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
<b>Ingestion</b>	Do NOT induce vomiting. Immediate medical attention is required. Never give anything by mouth to an unconscious person. Drink plenty of water.
<b>Protection of first-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

### **4.2. Most important symptoms and effects, both acute and delayed**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

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

**Notes to physician** Treat symptomatically.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	No information available.

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

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

### **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

## **SECTION 6: Accidental release measures**

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

<b>For non-emergency personnel</b>	Use personal protective equipment.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

### **6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Clean contaminated surface thoroughly. Use personal protective equipment. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid dust formation.

### **6.4. Reference to other sections**

See Sections 8 & 13 for additional information.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

Wear personal protective equipment. Ensure adequate ventilation. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

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

Keep container tightly closed in a dry and well-ventilated place. Keep in a banded area.

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

Use as a laboratory reagent.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**8.2. Exposure controls**

**Appropriate engineering controls**

Showers, eyewash stations, and ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Tightly fitting safety goggles.
<b>Skin protection</b>	
<b>Hand protection</b>	Impervious gloves.
<b>Other</b>	Impervious gloves. Impervious clothing.
<b>Respiratory protection</b>	In case of inadequate ventilation wear respiratory protection.

**Environmental Exposure Controls**

Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains.

**SECTION 9: Physical and chemical properties**

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

<b>Physical state</b>	Solid
<b>Appearance</b>	Powder
<b>Color</b>	Yellow, light red
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point/freezing point	107-120 °C	
Initial boiling point and boiling range		No information available
Flash point		No information available.
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Upper flammability limit		No information available
Lower flammability limit		No information available
Vapor pressure		No information available
Vapor density		No information available
Relative density		No information available
Solubility		No information available
Partition coefficient: n-octanol/water		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available.
Viscosity		No information available
Explosive properties		No information available
Oxidizing properties		No information available

**9.2. Other information**

<b>Softening point</b>	No information available
<b>Molecular Weight</b>	301.32 g/mol
<b>Solubility in other solvents</b>	No information available
<b>VOC content</b>	No information available
<b>Density</b>	No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous reactions</b>	None under normal processing.

**10.4. Conditions to avoid**

None known based on information supplied.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

None under normal use conditions.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

**Information on likely routes of exposure**

<b>Inhalation</b>	Inhalation of dust in high concentration may cause irritation of respiratory system.
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin contact</b>	May cause irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Symptoms</b>	No information available.
<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Mutagenic effects</b>	In vitro tests have shown mutagenic effects.
<b>Carcinogenic effects</b>	No information available.
<b>Reproductive toxicity</b>	May cause birth defects.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration Hazard</b>	No information available.

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**Other information** No information available.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No information available.

#### 12.2. Persistence and degradability

No information available.

#### 12.3. Bioaccumulative potential

**Bioaccumulation** No information available.  
**Bioconcentration factor (BCF)** No information available.

#### 12.4. Mobility in soil

No information available.

#### 12.5. Results of PBT and vPvB assessment

No information available.

#### 12.6. Other adverse effects

No information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Waste from residues / unused products** Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste.  
**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.  
**Other information** According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

### SECTION 14: Transport information

#### IMDG/IMO

**14.1 UN number** Not regulated  
**14.2 UN proper shipping name** Not regulated  
**14.3 Transport hazard class(es)** Not regulated  
**14.4 Packing group** Not regulated  
**14.5 Environmental hazards** None  
**14.6 Special precautions for user** None  
**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not regulated

#### ADR/RID

**14.1 UN number** Not regulated  
**14.2 UN proper shipping name** Not regulated  
**14.3 Transport hazard class(es)** Not regulated  
**14.4 Packing group** Not regulated  
**14.5 Environmental hazards** None

14.6 Special precautions for user None

**IATA**

14.1 UN number Not regulated  
14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazards None  
14.6 Special precautions for user None

**SECTION 15: Regulatory information**

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

**Candidate List of Substances of Very High Concern for Authorization Information**

This product does not contain Substances of Very High Concern (SVHC).

**SEVESO Directive Information**

This product does not contain substances identified in the SEVESO Directive.

**International inventories**

TSCA 8(b) -  
DSL/NDSL -  
EINECS/ELINCS Complies  
ENCS -  
IECSC -  
KECL -  
PICCS -  
AICS -

**International inventories legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
ENCS - Japan Existing and New Chemical Substances  
IECSC - China Inventory of Existing Chemical Substances  
KECL - Korean Existing and Evaluated Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
AICS - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out

**SECTION 16: Other information**

**Full text of H-Statements referred to under Sections 2 and 3**

H341 - Suspected of causing genetic defects if inhaled  
H361 - Suspected of damaging fertility or the unborn child if inhaled

Classification procedure: Expert judgment and weight of evidence determination.  
Issuing Date: 2014-11-26  
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**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 materials or in any process, unless specified in the text.

