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

Issuing Date: 2015-01-15 **Revision Date:** 2018-03-26 **Version:** 3

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

1.1. Product identifier

Product No 12328
Product name Sunitinib
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
Butanedioic acid, hydroxy-, (2S)-, compd. with N-(2-(diethylamino)ethyl)-5-((Z)-(5-fluoro-1,2-dihydro-2-oxo-3H-indol-3-ylidene)methyl)-2,4-dimethyl-1H-pyrrole-3-carboxamide (1:1) (90 - 100%)	Not Listed	341031-54-7

Formula $C_{22}H_{27}FN_4O_2 \cdot C_4H_6O_5$
Molecular Weight 532.57 g/mol
Other means of identification 12328S

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)
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

Manufacturer
Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400

Website www.cellsignal.com
E-mail Address 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

Reproductive toxicity	Category 1B - (H360Df)
Specific target organ toxicity - repeated exposure (STOT RE)	Category 1 - (H372)

2.2. Label elements

Signal word
Danger

Hazard statement(s)
H360Df - May damage the unborn child. Suspected of damaging fertility
H372 - Causes damage to organs through prolonged or repeated exposure if swallowed

Precautionary statement(s)
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/protective clothing/eye protection/face protection
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

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms Sunitinib malate;
Sutent;®
1H-Pyrrole-3-carboxamide,
N-(2-(diethylamino)ethyl)-5-((Z)-(5-fluoro-1,2-dihydro-2-oxo-3H-indol-3-ylidene)methyl)-2,4-dimethyl-, (2S)-hydroxybutanedioate (1:1)
Formula $C_{22}H_{27}FN_4O_2 \cdot C_4H_6O_5$
Chemical nature Monoconstituent substance.

Chemical Name	CAS No	Weight %	EC No	Classification (1272/2008)	REACH Registration Number
Butanedioic acid, hydroxy-, (2S)-, compd. with N-(2-(diethylamino)ethyl)-5-((Z)-(5-fluoro-1,2-dihydro-2-oxo-3H-indol-3-ylidene)methyl)-2,4-dimethyl-1H-pyrrole-3-carboxamide (1:1)	341031-54-7	100	-	Carc. 2 (H351) Repr. 1B (H360Df) STOT RE 1 (H372)	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.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.

Ingestion Do NOT induce vomiting. Immediate medical attention is required. Never give anything by mouth to an unconscious person. Drink plenty of water.

Protection of first-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

Fatigue. Asthenia. Fever. Diarrhea. Nausea. Vomiting. Abdominal pain. Constipation. hypertension. Peripheral edema. rash. Dry skin. Headache. back pain. Arthralgia. Shortness of breath or cough. dyspnea. Anorexia. mucositis. indigestion. hand-foot syndrome. skin discoloration. altered taste. extremity pain. Bleeding.

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

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media 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

For non-emergency personnel Evacuate personnel to safe areas. Ensure adequate ventilation.

For emergency responders 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

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up 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. Clean contaminated surface thoroughly.

6.4. Reference to other sections

See Sections 8 & 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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.

7.3. Specific end use(s)

Use as a laboratory reagent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls
Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

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

Environmental Exposure Controls
No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Color	yellow-orange
Odor	No information available
Odor Threshold	No information available

Property	**Values**	**Remarks • Method**
pH		No information available
Melting point/freezing point	198-200 °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

Softening point	No information available
Molecular Weight	532.57 g/mol
Solubility in other solvents	Soluble in dimethyl sulfoxide (DMSO) @ 40 mg/mL
VOC content	No information available
Density	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

Hazardous polymerization	Hazardous polymerization does not occur.
Hazardous reactions	None under normal processing.

10.4. Conditions to avoid

Protect from light and heat.

10.5. Incompatible materials

Strong oxidizing agents.

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

Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation.

Skin contact	May cause irritation.
Ingestion	Target Organ Effects. Reproductive Toxicity.
Symptoms	Fatigue. Asthenia. Fever. Diarrhea. Nausea. Vomiting. Abdominal pain. Constipation. hypertension. Peripheral edema. rash. Dry skin. Headache. back pain. Arthralgia. Shortness of breath or cough. dyspnea. Anorexia. mucositis. indigestion. hand-foot syndrome. skin discoloration. altered taste. extremity pain. Bleeding.
Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Sensitization	No information available.
Mutagenic effects	Not mutagenic in AMES Test. Negative in an in vivo rat micronucleus test. Negative in the chromosomal aberration assay.
Carcinogenic effects	In rasH2 transgenic mice gastroduodenal carcinomas and/or gastric mucosal hyperplasia, as well as an increased incidence of background hemangiosarcomas were observed at doses of =25 mg/kg/day following daily dose administration of sunitinib in studies of 1 or 6 months duration. No proliferative changes were observed in rasH2 transgenic mice at 8 mg/kg/day. In a 2-year Sprague-Dawley rat carcinogenicity study, administration of sunitinib in 28-day cycles followed by 7-day dose-free periods resulted in findings of duodenal carcinoma at doses as low as 1 mg/kg/day. At the high dose of 3 mg/kg/day the incidence of duodenal tumors was increased and was accompanied by findings of gastric mucous cell hyperplasia and by an increased incidence of pheochromocytoma and hyperplasia of the adrenal.
Reproductive toxicity	This material is classified as a Pregnancy Category D: Positive evidence of risk. Effects on the female reproductive system were identified in a 3-month repeat dose monkey study (2, 6, 12 mg/kg/day), where ovarian changes were noted at 12 mg/kg/day while uterine changes (endometrial atrophy) were noted at 2 mg/kg/day. With the addition of vaginal atrophy, the uterine and ovarian effects were reproduced at 6 mg/kg/day in the 9-month monkey study. 1.5 mg/kg/day represents a no effect level in monkeys administered sunitinib for 9 months. In female rats, no fertility effects were observed at doses of 5.0 mg/kg/day administered for 21 days up to gestational day 7, however significant embryolethality was observed at the 5.0 mg/kg dose. No reproductive effects were observed in male rats dosed (1, 3 or 10 mg/kg/day) for 58 days prior to mating with untreated females. Fertility, copulation, conception indices, and sperm evaluation (morphology, concentration, and motility) were unaffected by sunitinib at doses 10 mg/kg/day.
STOT - single exposure	No information available.
STOT - repeated exposure	Hepatotoxicity (including liver failure), cardiac toxicity and cardiac failure (left ventricular ejection fraction declines to below the lower limit of normal, prolonged QT intervals, torsade de pointes), osteonecrosis of the jaw, thyroid dysfunction, hypoglycemia and Stevens-Johnson syndrome or toxic epidermal necrolysis.
Aspiration Hazard	No information available.
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	Dispose of in accordance with local regulations.
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	-
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

H360Df - May damage the unborn child. Suspected of damaging fertility
H372 - Causes damage to organs through prolonged or repeated exposure if swallowed

Classification procedure:	Expert judgment and weight of evidence determination.
Issuing Date:	2015-01-15
Revision Date:	2018-03-26

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.