

N-(Cyclohexylthio)phthalimide

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

1.1 Product identifier

Trade name: N-(Cyclohexylthio)phthalimide
REACH registration No.: 01-2119488204-37-0004

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

General use: Chemical basic material.
For industrial purposes only.

Identified uses:

1. Manufacture, processing and distribution of substances and mixtures
2. Industrial use for rubber and plastic industry
3. Industrial use in tires industrial

1.3 Details of the supplier of the safety data sheet

Company name: NetSun EU B.V.
Street/POB-No.: Blaak 40, Fifth Floor
State/city/postal code: NL-3011 TA Rotterdam
Telephone: +31 (0)10 842 1148
Telefax: +31 (0)10 840 4118
Dept. responsible for information: REACH Department,
Telephone: +31 (0)10 842 1148, E-mail reachcompliance@netsun.com

1.4 Emergency telephone number

GIZ-Nord, Germany, Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP):

Aquatic Acute 1; H400 Very toxic to aquatic life.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Aquatic Chronic1:410

Classification according to directive 1999/45/EC(DPD):

Classification : R43
N;R50/53

Human health hazards : May cause sensitization by skin contact.

Environmental hazards : Very toxic to aquatic organisms, may cause long-term adverse
Effects in the aquatic environment.

2.2 Label elements

Labelling (CLP)



Signal word

Warning

Hazard Statements H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.

Safety precautions P261 Avoid breathing dust.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container to hazardous or special waste collection point.

Labelling (67/548/EEC or 1999/45/EC)



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R phrase(s): not applicable

S phrase(s): not applicable

2.3 Other hazards

No risks worthy of mention.

SECTION 3: Composition/ information on ingredients

3.1 Substances

Chemical characterization (substance):

C₁₄ H₁₅ N O₂ S >= 97%

CAS-Number: 17796-82-6

EINECS-Number: 241-774-1

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation: Provide fresh air. Seek medical treatment in case of troubles.

In case of skin contact: Remove residues with water. Take off immediately all contaminated clothing. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After swallowing: Drink large quantities of water. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

After contact with skin:

Specific symptoms in animal studies (Rat): mild irritant (OECD 404/EU B.4) After eye contact: Specific symptoms in animal studies (Rabbit): moderate irritant (OECD 405/EU B.5)

4.3 Indication of any immediate medical attention and special treatment needed

No special measures are required.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water fog, foam, extinguishing powder, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Combustible. In case of fire may be liberated: Nitrogen oxides (NO_x), sulphur oxides, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained breathing apparatus. Wear suitable protective clothing.

Additional information: Hazchem-Code: 2Z

Use water spray jet to knock down vapours. Do not allow fire water to penetrate into surface or ground water.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the substance. Avoid generation of dust. Do not breathe dust. Ensure adequate ventilation, especially in confined areas.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Collect dry and place in appropriate containers for disposal, cleaning.

6.4 Reference to other sections

not required

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling Avoid contact with skin, eyes, and clothing. Avoid generation of dust. In case of dust: Provide adequate ventilation, and local exhaust as needed.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Store container tightly closed in a dry and cool place.

Storage class: 11 = Combustible solids

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

DNEL
DNEL short term, workers, inhalative: 1,505 mg/m³
DNEL Long Term, workers, dermal: 0,5 mg/kg bw/d
DNEL Long Term, workers, inhalative: 0,301 mg/m³

PNEC
PNEC Water (freshwater): 0,00093 mg/L
PNEC Water (marine water): 0,000186 mg/L
PNEC Water (intermittent release): 0,0039 mg/L
PNEC Sediment (freshwater): 0,0105 mg/kg
PNEC Sediment (marine water): 0,0021 mg/kg
PNEC Soil: 0,0119 mg/kg w
PNEC Sewage treatment plant: 0,0132 mg/L

8.2 Exposure controls

In the case of the formation of dust: Withdraw by suction.

Occupational exposure controls

Respiratory protection: In case of dust: Particulates filter P2 according to EN 143.

Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed safety glasses according to EN 166.

Body protection: Wear suitable protective clothing.



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General protection and hygiene measures:

Take off immediately all contaminated clothing.
After work, wash hands and face.

SECTION 9: Physical and chemical properties

9.1 information on basic physical and chemical properties

Physical state:	solid (powder, Pellets)
Colour	white
Odour:	weak
Boiling temperature / boiling range	400 °C (calculated)
Melting point / melting range	91 - 95 °C (1013 hPa)
Flash point / flash point range:	172 °C
Autoflammability:	This product is non-flammable.
Explosive properties:	Product is not explosive.
Vapour pressure:	at 25 °C: negligible
Density:	at 25 °C: 1,3 g/cm ³
Water solubility:	at 20 °C: 12,4 mg/L
Partition coefficient n-octanol /water:	at 25 °C: 3,19 log P(o/w) An appreciable bioaccumulation potential is to be expected (log P(o/w) >3).
Thermal decomposition:	> 196 °C

9.2 Other information

Molecular weight: 261,34 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Product is stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

In case of fire may be liberated: Nitrogen oxides (NO_x), sulphur oxides, carbon monoxide and carbon dioxide.

Thermal decomposition: > 196 °C

SECTION 11: Toxicological information

11.1 Information on toxicological effects



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Acute toxicity: LD50 Rat, oral: 2600 mg/kg bw (OECD 423)
LD50 Rabbit, dermal: 5010 mg/kg bw
NOAEL Rat, oral, subchronic toxicity: 300 ppm/30 d
NOAEL Rat, inhalative, subchronic toxicity: > 536 mg/m³/28 d

In case of skin contact: May cause irritations. May cause an allergic skin reaction.

After eye contact: May cause irritations.

Symptoms

After contact with skin:
Specific symptoms in animal studies (Rat): mild irritant (OECD 404/EU B.4) After eye contact: Specific symptoms in animal studies (Rabbit): moderate irritant (OECD 405/EU B.5)

General remarks

Mutagenicity:
Bacterial mutagenicity: negative (in-vitro OECD 471)
Gene-mutations mammalian cells (hamster): negative (in-vitro, OECD 476/EU B.17)
Gene-mutations mammalian cells (Rat): negative (in-vivo, OECD 486)
Chromosomal aberrations (Rat): negative (in-vivo, OECD 475)

Carcinogenicity:
NOAEL (Rat, male): 500 mg/kg/d
NOAEL (Rat, female): 500 mg/kg/d

Reproductive toxicity:
NOEL (Rabbit, maternal toxicity): 30 mg/kg/7-19d
Toxicity for reproduction:
NOEL (Rat, maternal toxicity): 150 mg/kg/288d

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Very toxic to aquatic life.
Short term, Fish toxicity:
- LC50 (Oncorhynchus mykiss): 0,41 mg/L/96 h
- LC50 (Pimephales promelas (fathead minnow)): 0,39 mg/L/14 d
Short term, Invertebrate toxicity:
- EC50 (Daphnia magna (Big water flea)): 1,21 mg/L/48h (EU Method C.2)
- NOEC (Daphnia magna (Big water flea)): <0,82 mg/L/48h (EU Method C.2)
Long Term, Invertebrate toxicity:
- EC50 (Daphnia magna (Big water flea)): >2,0 mg/L/21d (OECD 211)
Short term, Algae toxicity:
- ErC50 Desmodesmus subspicatus (green algae): (EU Method C.3) >0,093 mg/L/72h

Water Hazard Class: 2 = hazardous to water

12.2. Persistence and degradability

Further details: Abiotic degradation:
- Hydrolysis: 99,7 %/7 d (25 °C, pH7) (Monsanto ABC-32456)
- Photolysis in light: not to be expected
- Photolysis in air: half-life time 2,8 h, calculated (SRCAOPWinv1.91) (US EPA, 2004)
- Photolysis in Water: No data available
- Photolysis in soil: No data available

Biodegradation: Product is not readily biodegradable.
- Water: 35 %/28 d (comparable to C.4E – Closed Bottle Test, Directive 92/69/EEC)
- Sediment: No data available
- Soil: No data available



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12.3 Bioaccumulative potential

Bioconcentration factor (BCF): 130 (calculated, US EPA, 2004)

Bioconcentration factor (BCF): 140,3 L/kg (calculated, BCFBAF v3.00)

Partition coefficient n-octanol /water:

at 25 °C: 3,19 log P(o/w)

An appreciable bioaccumulation potential is to be expected (log P(o/w) >3).

12.4 Mobility in soil

adsorption coefficient KOC: 483 L/kg

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number 07 01 99 = Wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
MFSU = manufacture, formulation, supply and use

Recommendation: Special waste. Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself.
Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA: 3077

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(N-(Cyclohexylthio)phthalimide)

14.3 Transport hazard class(es)

ADR/RID: Class 9, Code: M7

IMDG: Class 9, Code -

IATA: Class 9

14.4 Packing group

ADR/RID, IMDG, IATA: III

14.5 Environmental hazards

Marine Pollutant Yes

14.6 Special precautions for user

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Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 90, UN number 3077
Hazard label	9
Special provisions	274 335 601
Limited quantities	5 kg
EQ	E1
Contaminated packaging: Instructions	P002 IBC08 LP02 R001
Contaminated packaging: Special provisions	PP12 B3
Special provisions for packing together	MP10
Portable tanks: Instructions	T1 BK1 BK2
Portable tanks: Special provisions	TP33
Tank coding	SGAV LGBV
Tunnel restriction code:	E



Sea transport (IMDG)

EmS:	F-A, S-F
Special provisions	179, 274, 335, 909
Limited quantities	5 kg
EQ	E1
Contaminated packaging: Instructions	P002, LP02
Contaminated packaging: Provisions	PP12
IBC: Instructions	IBC08
IBC: Provisions	B3
Tank instructions: IMO	-
Tank instructions: UN	T1, BK2
Tank instructions Provisions	TP33
Stowage and segregation	Category A.
Properties and observations	-

Air transport (IATA)

Hazard	Miscellaneous
EQ	E1
Passenger Ltd.Qty.:	Pack.Instr. Y956 - Max.Qty. 30 kg G
Passenger:	Pack.Instr. 956 - Max.Qty. 400 kg
Cargo:	Pack.Instr. 956 - Max.Qty. 400 kg
Special Provisioning	A97 A158 A179
ERG	9L

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: 2Z

National regulations - Germany

Storage class: 11 = Combustible solids

Water Hazard Class: 2 = hazardous to water

Informations on working limitations:

Observe employment restrictions concerning young persons.
Observe employment restrictions for expectant or nursing mothers.



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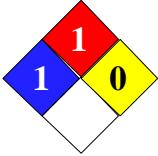
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National regulations - USA

Hazard rating systems



TSCA Inventory: listed
TSCA HPVC: not listed
NFPA Hazard Rating:
Health: 1 (Slight)
Fire: 1 (Slight)
Reactivity: 0 (Minimal)
HMIS Version III Rating:
Health: 1 (Slight)
Flammability: 1 (Slight)
Physical Hazard: 0 (Minimal)
Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Group that issues data sheet

Contact person: see chapter 1, department responsible for information.

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.