Date of issue: 25 Jun. 2019

SAFETY DATA SHEET

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

1.1. Product identifier

Product name: PYRIFLUQUINAZON 20SC

(Synonym: NNI-0101 20SC, COLT)

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

Relevant identified uses: For Research and Development Use Only

1.3. Details of the supplier of the safety data sheet

Manufacturer

Nihon Nohyaku Co., Ltd.

19-8, Kyobashi 1-Chome, Chuo-Ku, Tokyo 104-8386, JAPAN (ENVIRONMENT SAFETY DEPT. / Phone: 81-3-6361-1426

Facsimile: 81-3-6361-1451

e-mail: kankyouanzen@nichino.co.jp)

1.4. Emergency telephone number

OVERSEAS DEVELOPMENT GROUP, DEVELOPMENT DEPT.,

Nihon Nohyaku Co., Ltd.

19-8, Kyobashi 1-Chome, Chuo-Ku, Tokyo 104-8386, JAPAN Phone: 81-3-6361-1425 Facsimile: 81-3-6361-1451 (Only during office hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (oral); H302 Skin Sens. 1B; H317

STOT RE 2; H373 (blood system, liver, kidney)

Aquatic Chronic 1; H410

Additional information: See SECTION 16 for full text of Hazard- and EU Hazard-statements.

2.2. Label elements

<u>Labelling according to Regulation (EC) No. 1272/2008 [CLP]</u> Hazard Pictogram:







Signal Word: Warning

Hazard Statement:

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs (blood system, liver, kidney) through

prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statement (Prevention):

P260 Do not breathe mist/vapours/spray.
P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the

workplace.

P280 Wear protective gloves.

P273 Avoid release to the environment.

Precautionary Statement (Response):

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.
P391 Collect spillage.

Precautionary Statement (Storage):

Precautionary Statement (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is regulated as a mixture.

3.2. Mixtures

Active ingredient: 1-acetyl-1,2,3,4-tetrahydro-3-[(3-pyridylmethyl)amino]-

6-[1,2,2,2- tetrafluoro-1-(trifluoromethyl)ethyl]quinazolin-

2-one (IUPAC name)

(Common name: Pyrifluquinazon)

224 g/L

Hazardous ingredients:

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Chemical name	CAS No.	CLP index	Concentration (%, w/w)	Classification according to Regulation (EC) No.			
		No.		1272/2008 [CLP]			
Pyrifluquinazon	337458-27- 2	-	20.0	Acute Tox. 4; H302, Acute Tox 4; H332 STOT RE 2; H373, Aquatic Acute 1; H400, Aquatic Chronic 1; H410			

Hazardous ingredients (continued):

Chemical name	CAS No.	CLP	Concentration	Classification according
		index	(%, w/w)	to Regulation (EC) No.
		No.		1272/2008 [CLP]
Sulfonated aromatic	-	-	>1 - <5	Skin Irrit. 2; H315,
polymer, sodium salt				Eye Irrit. 2; H319
N, N-dimethylacetamide	127-19-5	616-011	< 0.1	Acute Tox. 4; H312,
		-00-4		Acute Tox. 4; H332,
				Repr. 1B; H360D
1,2-Benzisothiazolin-3-	2634-33-5	613-088	<0.05	Acute Tox. 4; H302,
one		-00-6		Skin Irrit. 2; H315,
				Eye Dam. 1; H318,
				Skin Sens. 1; H317,
				Aquatic Acute 1; H400

CLP index No.: Index No. in part 3 of Annex VI of Regulation (EC) No. 1272/2008 See SECTION 16 for full text of Hazard- and EU Hazard-statements.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. If

eye irritation persists, get medical attention.

Skin contact: Remove contaminated clothing. Wash with plenty of water and

soap. If irritation persists, get medical attention. Contaminated

clothing should be laundered before reuse.

Ingestion: If swallowed, rinse mouth with water, and give one or two

glasses of water to drink. Keep patient at rest and obtain

medical aid. Do not induce vomiting.

Inhalation: Remove patient from exposure, keep warm and at rest. Get

medical attention if ill effect occurs.

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

The most important known symptoms and effects are described in the SECTION 2 and SECTION 11.

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

Show this safety data sheet to the doctor in attendance.

SECTION 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Foam, Dry chemical powder, Carbon dioxide

Unsuitable extinguishing media: No data available.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:Combustion or thermal decomposition may evolve toxic vapours. (CO, CO₂, NO_x etc.).

5.3. Advice for firefighters

Special protective equipment for firefighters:

Firefighters should wear proper protective equipment.

Further information: Avoid extinguishing media such as water, foam, and dry

chemicals flow into pond, river and lake.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Evacuate non-essential personnel. Wear proper protective

equipment.

6.2. Environmental precautions

Environmental precaution: Prevent spills from entering sewers, watercourse or low areas.

Washings should not be poured into drains or waterway.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Adsorb spillage onto sand, soil or any suitable adsorbent

material. Transfer to a container for disposal. Wash the spillage

area with water.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in the SECTION 8 and SECTION 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Use with adequate ventilation. Avoid contact with skin and eyes. Do not breathe mist or vapour. After handling wash face and hands thoroughly with soap and water. Do not eat, drink or smoke when using.

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion

No data available.

Requirements for storage areas and containers

Avoid direct sunlight. Store in a cool, dry and well-ventilated place. Keep in original containers, tightly closed.

Advice on common storage

Keep away from food, drink and animal feeding stuffs and out of reach of children. Keep locked up.

7.3. Specific end use(s)

Section 1 informs about identified end-uses.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits values

Pyrifluquinazon: Not established by OSHA^{#1}, ACGIH^{#2} or JSOH^{#3}.

#1: Occupational Safety and Health Administration

#2: American Conference of Governmental Industrial Hygienist

#3: Japan Society for Occupational Health

8.2 Exposure controls

Engineering controls: If practical, use with adequate ventilation in the working

area. Make available in the work area emergency shower

and eyewash.

Personal protective equipment:

Respiratory protection: Wear approved respiratory protection equipment. Eye protection: Wear eyeglasses or chemical safety goggles.

Skin protection: Wear suitable protective clothing and gloves to prevent skin

contact. Launder contaminated clothes and clean protective equipment. Wash hand and skin thoroughly after

handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Off-white viscous suspension

Odour: No odour detected.
Odour threshold: No data available

pH: 6 ~ 9 (1% water suspension)

Melting point: No data available Initial boiling point and boiling range: No data available

Flash point None determined before the test substance boiled at 87°C.

Evaporation rate: No data available Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits:

No data available

Vapour pressure:

Vapour density:

No data available

No data available

Relative density 1.09 ~ 1.13

Solubility (ies):

Partition coefficient (n-octanol/water):

Auto ignition temperature

Decomposition temperature:

Viscosity:

No data available

Oxidizing properties: No oxidizing properties

9.2. Other information

Not applicable.

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

This product is stable for under normal storage and handling conditions

10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

Excessive heat.

10.5. Incompatible materials

Not known.

10.6. Hazardous decomposition products

No data available.

See also SECTION 5.2.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Oral: Rat LD50 (mg/kg) female 2000

Dermal: Rat LD50 (mg/kg) male, female >2000

(No animals died at a dose level of 2000 mg/kg.)

Inhalation: Rat LC50 (mg/L/4h) male, female >2.10

Skin corrosion/irritation:

Rabbit Slightly irritant

Serious eye damage/irritation:

Rabbit Mildly irritant

Respiratory or skin sensitisation:

Respiratory sensitisation: No data available

Skin sensitisation:

Mouse LLNA-test^{#4} Positive

#4 Local lymph node assay

Germ cell mutagenicity:

Carcinogenicity:

Reproductive toxicity:

No data available

No data available

Specific target organ toxicity (Single exposure):

No data available

Specific target organ toxicity (Repeated exposure):

This product is classified in Category 2 based on an estimate from the content of ingredients classified in Category 2.

Hazardous ingredients:

Pyrifluquinazon: STOT RE 2; H373 (blood system, liver, kidney)

Aspiration hazard: No data available

SECTION12: ECOLOGICAL INFORMATION

12.1. Toxicity

Based on the information about ingredients this product is classified as follows:

Aquatic Chronic 1 (Contains 16.8% of components with unknown hazards to the aquatic environment)

Data on this product:

Rainbow trout LC50 (96h) 31 mg/L Daphnia^{#5} EC50 (48h) 35 mg/L

#5: Daphnia magna

Data on pyrifluquinazon technical:

Carp LC50 (96h) 4.4 mg/L
Daphnia^{#5} EC50 (48h) 0.0027 mg/L
Algae^{#6} ErC50 (72h) 11.8 mg/L

#6 Pseudokirchneriella subcapitata

12.2. Persistence and degradability

No data available for this product.

12.3. Bioaccumulative potential

No data available for this product.

12.4. Mobility in soil

No data available for this product.

12.5. Results of PBT and vPvB assessment

No data available for this product.

12.6. Other adverse effects

No data available for this product.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product: Product should be disposed of according to label instructions and/or

local regulations. Do not dump into sewers, on the ground or into any body of water. Repealing liquid containing this product should be

avoided flowing into river, pond and lake.

Contaminated packaging: Dispose used container according to the local regulations.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID)

14.1. UN number: 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (pyrifluquinazon mixture) **14.3. Transport hazard class(es):** 9

14.4. Packing group: III

14.5. Environmental hazards: YES

14.6. Special precautions for user:

Sea transport (IMDG)

14.1. UN number: 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (pyrifluquinazon mixture)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

14.5. Environmental hazards: MARINE POLLUTANT

14.6. Special precautions for user:

Sea transport (MARPOL 73/78)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code:

Air transport (ICAO/IATA)

14.1. UN number: 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (pyrifluquinazon mixture) **14.3. Transport hazard class(es):** 9

14.4. Packing group: III

14.5. Environmental hazards: YES **14.6. Special precautions for user:**

SECTION 15: REGULATORY INFORMATION

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

15.2. Chemical safety assessment

SECTION 16: OTHER INFORMATION

Text of H-Code(s) mentioned in SECTION 2 and SECTION 3 (for information only):

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage. H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H360D: May damage the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

The information herein is given in good faith, but not warranty. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of product. It is not applicable to unusual or non-standard uses of product, nor where instructions or recommendations are not followed.