

Safety Data Sheet

Safety Data Sheet / Leimay

Issue Date : September 13, 2024

Revision Date : -

Version No. : 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Name of product : **Leimay**
Other names : Amisulbrom 200 g/L SC, Amisulbrom 20 % w/v SC, NC-224 20SC, Gachinko, Leimay 20SC, Shinkon, Canvas, Leimay S
Formulation code : NC-224 20SC 03
Type of formulation : Suspension concentrate (SC)
Product registration number : 344PC
Unique Formula Identifier (UFI) : TGC0-8NKV-Q002-6D7Y

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

Function : Plant protection product, Fungicide
Recommended restrictions on use : Professional use

1.3. Details of the supplier of the safety data sheet

Manufacturer and Supplier

Nissan Chemical Europe S.A.S.
18 Chemin des cuers, 69570 DARDILLY, France
Contact person : Mr. Yasuhiro Fukami
Phone : +33 (0)4 37 64 40 20

1.4. Emergency telephone number

Nissan Chemical Europe S.A.S.
: +33 (0)4 37 64 40 20 (available only during office hours)

Centrul de Informare Toxicologică - Spitalul Clinic de Urgență București, Strada Calea Floreasca nr. 8, Sector 1, București, Tel: 0215992300, Fax: 0215992257, Apel de urgență 021 112.
Spitalul Clinic de Urgență pentru Copii "Grigore Alexandrescu", Bd. Iancu de Hunedoara nr. 30-32, București, Tel: 021 2106282; 021 2106183.

2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 [CLP]

Carcinogenicity Category 2, H351
Aquatic Chronic Category1, H410

2.2. Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 [CLP]

Hazard pictogram



Signal word
Warning

Hazard statements

H351 : Suspected of causing cancer
H410 : Very toxic to aquatic life with long lasting effects
EUH401 : To avoid risks to human health and the environment, comply with the instructions for use.

2. HAZARD IDENTIFICATION (continued)

Precautionary statements

P201	: Obtain special instructions before use.
P273	: Avoid release to the environment.
P281	: Use personal protective equipment as required.
P308+P313	: IF exposed or concerned: Get medical advice/attention.
P391	: Collect spillage.
P501	: Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

This product 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.

Ecological information: This product 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.

Toxicological information: This product 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.

3. COMPOSITION/INFORMATION OF INGREDIENTS**3.2. Mixtures****Chemical Composition**

Amisulbrom	> 10 - < 30 % w/v
Ethoxylated polyaryphenol	> 1 - < 5 % w/v
Alkylpolyglucoside	> 15 - < 20 % w/v
Others	< 50 - < 70 % w/v

Active Ingredient

Common Name	: Amisulbrom
Code No.	: NC-224
CAS No.	: 348635-87-0
Chemical Name	
(CA)	: 3-[(3-bromo-6-fluoro-2-methyl-1 <i>H</i> -indol-1-yl)sulfonyl]- <i>N,N</i> -dimethyl-1 <i>H</i> -1,2,4-triazole-1-sulfonamide
(IUPAC)	: 3-(3-bromo-6-fluoro-2-methylindol-1-ylsulfonyl)- <i>N,N</i> -dimethyl-1 <i>H</i> -1,2,4-triazole-1-sulfonamide
Classification in accordance with Regulation (EC) No 1272/2008 [CLP]	
	: Eye irritation 2, Carcinogenicity 2, Aquatic Acute 1, Aquatic Chronic 1 H319, H351, H400, H410
REACH registration No.	
	: Not applicable
EINECS or ELINCS No.	
	: 672-776-4

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media
: Water, foam, dry chemicals or carbon dioxide.

Extinguishing media which shall not be used for safety reasons
: High volume water jet.

5.2. Special hazards arising from the substance or mixture

Carbon dioxide, carbon monoxide, halogenated compounds and oxides of nitrogen and sulfur are potential thermal decomposed products.

5.3. Advice for firefighters

In the event of fire and/or explosion do not breathe fumes. Use self-contained breathing apparatus and protective clothing

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, shoes, gloves and goggles. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.

6.2. Environmental precautions

Keep unauthorized persons, children and animals away from the affected area. Prevent spillage from entering the drainage systems or watercourses.

6.3. Methods and material for containment and cleaning up

Carefully sweep up and collect the spilled material using an inert absorbent material (sand, vermiculite, or sawdust) and place in a closed container (drum) for disposal. Remove (large quantities) with vacuum truck. Do not raise dust. Wash affected area with water containing detergent.

6.4. Reference to other sections

See section 8 for personnel protective equipment.

See section 13 for waste disposal.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

No specific precautions required when handling unopened packs/containers. Avoid contact with skin or eyes. Protect containers against physical damage. Wear suitable protective clothing, shoes, gloves and goggle during handling. Do not eat, drink, or smoke during the work. Prevent spillage from entering the drainage systems or watercourses.

7.2. Conditions for safe storage, including any incompatibilities

Keep tightly closed in original labeled container. Store in a cool and dry place and protect from direct sunlight. Keep away from the reach of children. Keep away from foods, drinks and animal feeding stuffs.

7.3. Specific end use(s)

Use this product only for plant protection.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values (DNEL, PNEC)
: Not established.

8.2. Exposure controls

Exposure controls

Occupational exposure controls

Respiratory protection

: Particle filter with medium efficiency for solid and liquid particles.

Hand protection

: Chemical resistant gloves, Rubber gloves.

Eye protection

: Safety glasses or goggles.

Skin protection

: Impervious clothing such as gloves, apron or PVC boots.

Environmental exposure controls

: Prevent spillage from entering the drainage systems or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state : Opaque liquid
 Colour : Off white
 Odour : Odourless
 Melting point : No data available
 Boiling point : Approximately 102°C
 Flammability : Not flammable
 Lower and upper explosion limit : Not explosive
 Flash point : Not determinable (no flash point observed)
 Auto-ignition temperature : Not self-igniting below 400°C
 Decomposition temperature : Not required as this product is not self-reactive.
 pH : 8.1 in distilled water (1% w/v suspension)
 Kinetic viscosity : 120 to 3000 mm²/s at 20°C, 50 to 2000 mm²/s at 40°C
 Solubility : Water 0.11 mg/L at 20 °C (amisulbrom)
 Toluene 88.6 g/L at 20 °C (amisulbrom)
 Methanol 10.1 g/L at 20°C (amisulbrom)
 Partition coefficient (*n*-octanol/water) : Log Pow (*n*-octanol/water) = 4.4 (amisulbrom)
 Vapor pressure : 1.8 x 10⁻⁸ Pa at 25°C (amisulbrom)
 Relative density : 1.13
 Relative vapor density : No data available
 Particle characteristics : Not required as this product is liquid

9.2. Other information

No other information is available.

10. STABILITY AND REACTIVITY

10.1. Reactivity

May react with strong bases, acids or strong oxidizing agents, such as chlorates, nitrates, peroxides.

10.2. Chemical stability

Stable under normal ambient storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions will not occur.

10.4. Conditions to avoid

Avoid high temperatures. Protect from sunlight, open flame, sources of heat and humidity.

10.5. Incompatible materials

May react with strong bases, acids or strong oxidizing agents, such as chlorates, nitrates, peroxides.

10.6. Hazardous decomposition products

None hazardous decomposition products under normal conditions of storage and use. Thermal decomposition products include carbon monoxide, sulfur oxides and halogenated compounds.

11. TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 [CLP]

Information on likely routes of exposure

: Ingestion, inhalation, skin contact and eye contact

Product

Acute oral toxicity LD₅₀ (rats)

: > 5000 mg/kg

This product has no acute oral toxicity.

Acute dermal toxicity LD₅₀ (rats)

: > 5000 mg/kg

This product has no acute dermal toxicity.

Acute inhalation toxicity LC₅₀ (rats)

: > 6.43 mg/L (4 hrs.)

This product has no acute inhalation toxicity.

Eye irritation (rabbits)

: Moderately irritating

Skin irritation (rabbits)

: Not irritant

Sensitization (guinea pigs)

: Not a sensitizer

Components

Amisulbrom (ISO)

Toxicokinetics, metabolism and distribution

: Rapidly absorbed (C_{max} 2-6 hr). 50% oral absorption based on biliary and urinary excretion. Rapidly distributed but, no evidence for accumulation.

Short-term oral toxicity (90 days)

: NOAEL (rats) 171/587 mg/kg/day (M/F)

This substance has no oral toxicity.

Short-term oral toxicity (1 year)

: NOAEL (dogs) 100 mg/kg/day

This substance has no oral toxicity.

11. TOXICOLOGICAL INFORMATION (continued)

- Short-term dermal toxicity (21 days)
 - : NOAEL (rats) 300/1000 mg/kg/day (M/F)
 - This substance has no dermal toxicity.
- Chronic (1 years) : NOEL (rats) 11.1/14.3 mg/kg/day
 - This substance has no chronic toxicity.
- Carcinogenicity (2 years)
 - : NOEL (rats) 96/129 mg/kg/day (M/F)
 - Liver carcinogenicity in rats and mice (non-relevant to human).
- Reproductive toxicity
 - : NOAEL (rats) 1200/261 mg/kg/day (Reproduction, M/F)
 - No effects on reproduction
- Developmental toxicity
 - : NOEL (rabbits) 300 mg/kg/day.
 - Not teratogenic
- Mutagenicity : Not mutagenic (Negative in *in vitro* & *in vivo* studies)

Ethoxylated polyarylphenol

- Acute oral toxicity : LD₅₀ (rats) Ca. 5000 mg/kg - Rat, male and female
 - Unpublished internal reports
- Acute dermal toxicity
 - : LD₅₀ (rats) >2000 mg/kg - Rat, male and female
 - OECD Test Guideline 402
 - This product has no acute dermal toxicity.
 - No mortality observed at this dose.
 - Unpublished internal reports.
- Acute inhalation toxicity
 - : No data available
- Acute toxicity (other routes of administration)
 - : No data available
- Serious eye damage/eye irritation (rabbits)
 - : Slight irritation
 - OECD Test Guideline 405
 - Unpublished internal reports
- Skin corrosion/irritation (rabbits)
 - : No skin irritation
 - OECD Test Guideline 404
 - Unpublished internal reports
- Respiratory or skin sensitization
 - : No data available
 - This product is not considered to be sensitizing by skin contact. Internal evaluation.
- Mutagenicity (Reverse mutation assay)
 - : (*Salmonella typhimurium*) Negative
 - Unpublished internal reports
- Genotoxicity in vivo : No data available
- Carcinogenicity : No data available
- Toxicity to reproduction/fertility
 - : No data available
- Developmental toxicity/teratogenicity
 - : No data available
- STOT- single exposure
 - : This product is not classified as specific target organ toxicant, single exposure according to GHS criteria. Internal evaluation.
- STOT – repeated exposure
 - : No data available
- Experience with human exposure
 - : No data available
- Aspiration toxicity : No aspiration toxicity classification

11. TOXICOLOGICAL INFORMATION (continued)**Alkylpolyglucoside**

Acute oral toxicity	: LD ₅₀ >5000 mg/kg OECD Test Guideline 401 Not classified as dangerous
Acute dermal toxicity	: LD ₅₀ >2000 mg/kg OECD Test Guideline 402 Not classified as dangerous
Eye irritation	: Causes serious eye damage
Skin irritation	: Irritating to skin
Skin Sensitization	: Non-sensitiser to skin
Mutagenicity	: Negative
Bacterial reverse mutation test	: Negative Not mutagenic in a standard battery of genetic toxicological tests.
Mammalian chromosome aberration test	: Negative Not mutagenic in a standard battery of genetic toxicological tests.
Mammalian cell gene mutation test	: Negative Not mutagenic in a standard battery of genetic toxicological tests.
Carcinogenicity	: Not available
Reproductive toxicity	: Negative (maternal, fertility, developmental) OECD Test Guideline 414 (Does) Oral 1000 mg/kg bw/day
Teratogenicity	: No data available
STOT – single exposure	: No data available
STOT – repeated exposure	: No data available
Aspiration hazard	: No data available

11.2. Information on other hazards**Endocrine disrupting properties**

This product 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. ECOLOGICAL INFORMATION**12.1. Toxicity****Product**

Toxicity to fish	: LC ₅₀ (96 h, <i>Cyprinus carpio</i>) 1900 µg as/L
Toxicity to <i>Daphnia</i>	: EC ₅₀ (48 h, <i>Daphnia magna</i>) 44 µg as/L
Toxicity to algae	: ErC ₅₀ (72 h, <i>P. subcapitata</i>) 200 µg as/L
Toxicity to bees	: LD ₅₀ (Oral/Contact, 48h, <i>Apis mellifera</i>) >100 µg/bee
Toxicity to earthworm	: LC ₅₀ (14-day) >1000 ppm

Components**Amisulbrom (ISO)**

Toxicity to bird	: LD ₅₀ (Bobwhite quail and Mallard duck) >2000 mg/kg
Toxicity to bees	: LD ₅₀ (Oral/Contact, 48h, <i>Apis mellifera</i>) >100 µg/bee

12. ECOLOGICAL INFORMATION (continued)

Toxicity to earthworm : LC₅₀ (14 days, *Eisenia foetida*) >1000 mg/kg of soil
 Soil micro-organism : No long-term influence on nitrogen and carbon transformation (<25% effect)
 Sewage treatment : No inhibitory effect

Ethoxylated polyarylphenol

Toxicity to fish : LC₅₀ (96 h, *Brachydanio rerio*) 21 mg/L
 OECD Test Guideline 203 Semi-static test
 Unpublished internal reports
 Information given is based on data obtained from similar substance
 Toxicity to *Daphnia* and other aquatic invertebrates : No data available
 Toxicity to plants : No data available
 Chronic toxicity to fish : No data available
 Chronic toxicity to *Daphnia* and other aquatic invertebrates : No data available

Alkylpolyglucoside

Toxicity to fish : LC₅₀ (96 h, *Danio rerio*) 2.95 to 5.9 mg/L
 OECD Test Guideline 203
 Toxicity to *Daphnia* : LC₅₀ (48 h, *Daphnia magna*) 7 to 14 mg/L
 NOEC (21 days, *Daphnia magna*) 1 to 4 mg/L
 OECD Test Guideline 202
 Toxicity to algae : EC₅₀ (72 h, *D. subspicatus*) 5 to 38 mg/L

12.2. Persistence and degradability**Product**

Field studies with the product in 5 locations in EU indicate that mean DT₅₀ was 6.9 days.

Components**Amisulbrom (ISO)**

Amisulbrom is hydrolytically degraded, especially rapidly under alkaline condition. Amisulbrom is readily degraded in soils and water/sediment systems.

Hydrolysis (20°C) : DT₅₀ 163 days (pH 4)
 140 days (pH 7)
 16 days (pH 9)
 Aqueous photolysis (25°C) : DT₅₀ 6.1 hours (pH 4, xenon arc lamp)
 Degradation in soil (20°C) : DT₅₀ 60 days (Geometric mean)
 Ready biodegradability : Not readily biodegradable

Ethoxylated polyarylphenol

Abiotic degradation : No data available
 Physical and photo chemical elimination : No data available
 Biodegradation : By analogy
 Ultimate aerobic biodegradability
 Not biodegradable
 Unpublished internal reports
 Information given is based on data obtained from similar substances
 Internal evaluation

12. ECOLOGICAL INFORMATION (continued)

Degradability assessment

: This product is not considered to be rapidly degradable in the environment.

Alkylpolyglucoside

Ready biodegradability

: 94.5 % - Readily - 28 days, OECD 301B

88 % - Readily - 28 days, OECD 301D

Biodegradability : Readily

Degradability assessment

: This product is rapidly degradable.

12.3. Bioaccumulative potential

Product

No information is available for the product.

Components

Amisulbrom (ISO)

The potential of the active ingredient to accumulate in biota and pass through the food chain is considered to be low based on the BCF and a rapid degradation of the substance.

Partition coefficient (*n*-octanol/water)

: log Pow 4.4

Bioconcentration : BCF 176

Ethoxylated polyarylphenol

Partition coefficient (*n*-octanol/water)

: log Pow Not applicable Surface-Active

Bioconcentration : BCF No data available

Alkylpolyglucoside

Partition coefficient (*n*-octanol/water)

: log Pow -0.3 to 3.25

Bioconcentration : BCF Low

12.4. Mobility in soil

Product

No information is available for the product.

Components

Amisulbrom (ISO)

Amisulbrom is considered not to leach into ground water.

Adsorption/desorption

: Amisulbrom $K_{f^{abs}_{oc}}$: 8156-44231 (immobile class)

Ethoxylated polyarylphenol

Adsorption/desorption

: $K_{f^{abs}_{oc}}$: No data available

Known distribution to environmental compartments

: No data available

12. ECOLOGICAL INFORMATION (continued)

Alkylpolyglucoside

Adsorption/desorption

: $K_{f^{abs}_{oc}}$: No data available

12.5. Results of PBT and vPvB assessment

Product

This product 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.

12.6. Endocrine disrupting properties

Product

This product 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

Not available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Do not contaminate water, foodstuffs, feed or seed by disposal.

PRODUCT DISPOSAL

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or burned in incinerator in accordance with all applicable regulations.

CONTAINER DISPOSAL

Completely empty container by shaking and tapping sides and bottom to loosen clinging particles. Do not reuse container. Triple rinse container, then puncture and dispose of by incineration in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

14.1. UN number

3082

14.2. UN proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (amisulbrom)

14.3. Transport hazard class(es)

Class 9

14.4. Packing group

Packing Group III

14.5. Environmental hazards

Marine Pollutant Label

: Marine Pollutant

14.6. Special precautions for user

No special precautions available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No bulk transportation intended.

14. TRANSPORT INFORMATION (continued)**14.8. Supplemental information****IMDG**

UN no. : 3082
 Class : 9
 Packing group : III
 EmS : F-A, S-F
 Hazard label : Miscellaneous (S)
 Marine pollutant label :
 : Marine pollutant
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (amisulbrom)

ICAO/IATA

UN no. : 3082
 Class : 9
 Packing group : III
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (amisulbrom)

ADR/RID

UN no. : 3082
 Class : 9
 Packing group : III
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (amisulbrom)

ADN/ADNR

UN no. : 3082
 Class : 9
 Packing group : III
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (amisulbrom)

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

The product is regulated under the EU Directive(s) or Regulation(s) on plant protection products since it is one of plant protection products.

Further Information

WHO Classification : III (Slightly hazardous)

JAPAN : This product for use of pesticides is controlled under Agricultural Chemicals Regulation Law.
 Not classified under Poisonous and Deleterious Substances Control Law

15.2. Chemical safety assessment

The chemical safety assessment has not been carried out for this product yet.

16. OTHER INFORMATION**16.1. Classification and procedure used to derive the classification for mixtures in accordance with Regulation (EC) No 1272/2008 [CLP]**

Classification in accordance with Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Carcinogenicity Category 2, H351	On basis of test data
Aquatic Chronic Category 1, H410	On basis of acute data

16.2. Relevant Hazard and Precautionary statements (see Sec. 2 and 3)

Hazard statements

H315	: Causes skin irritation
H318	: Causes serious eye damage
H319	: Causes serious eye irritation
H351	: Suspected of causing cancer
H400	: Very toxic to aquatic life
H410	: Very toxic to aquatic life with long lasting effects
H412	: Harmful to aquatic life with long lasting effects
EUH401	: To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P201	: Obtain special instructions before use.
P202	: Do not handle until all safety precautions have been read and understood.
P264	: Wash hands thoroughly after handling.
P273	: Avoid release to the environment.
P280	: Wear protective gloves/protective clothing/eye protection/face protection.
P281	: Use personal protective equipment as required.
P302+P352	: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	: IF exposed or concerned: Get medical advice/attention.
P310	: Immediately call a POISON CENTER or doctor/physician.
P321	: Specific treatment (see on this label)
P332+P313	: If skin irritation occurs: Get medical advice/attention.
P337+P313	: If eye irritation persists: Get medical advice/attention.
P362	: Take off contaminated clothing and wash before reuse.
P391	: Collect spillage.
P405	: Store locked up.
P501	: Dispose of contents/container in accordance with local regulation.

Version	Changes	Date
Version 1	First version	September 13, 2024

This Safety Data Sheet is prepared in accordance with Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

The information above is believed to be accurate and represents the best information currently available. However, Nissan Chemical Corporation makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and Nissan Chemical Corporation assumes no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.