

Product: **EKALAND™ NITROSO HU**

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SDS No.: 100030-100 (Version 4.1)

Date 11.12.2019 (Cancel and replace : 26.08.2019)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
1.1. Identification of the product

Substance name: EKALAND™ NITROSO HU
 REACH Registration Number: 01-2120785041-60-0000
 EC Nr: 201-663-0
 CAS-No.: 86-30-6

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

Use of the Substance/Mixture : Polymerisation inhibitor

1.3. Details of the supplier of the safety data sheet

Supplier	MLPC International 209, Avenue Charles Despiau F-40370 RION-DES-LANDES, FRANCE Telephone: + 33 (0) 5 58 57 02 00 E-mail address: http://www.mlpc-intl.com fds@mlpc-intl.com
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1.4. Emergency telephone number

+1-703-741-5970 CHEMTREC international emergency phone number (ARKEMA CCN830055)

2. HAZARDS IDENTIFICATION
2.1. Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008):

Skin sensitisation, 1, H317
 Carcinogenicity, 2, H351
 Reproductive toxicity, 2, H361d
 Specific target organ toxicity - repeated exposure, 2, Bladder, H373
 Chronic aquatic toxicity, 1, H410

M-Factor: Chronic = 1

Additional information:

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

2.2. Label elements
Label elements (REGULATION (EC) No 1272/2008):
Hazardous components which must be listed on the label:

CAS-No. : 86-30-6

Nitrosodiphenylamine

Hazard
pictograms:



Signal word:

Warning
Hazard statements:

H317 : May cause an allergic skin reaction.
 H351 : Suspected of causing cancer.
 H361d : Suspected of damaging the unborn child.
 H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.
 H410 : Very toxic to aquatic life with long lasting effects.

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Precautionary statements:

Prevention:

P201 : Obtain special instructions before use.
P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280 : Wear protective gloves and protective clothing and eye protection and face protection.
P273 : Avoid release to the environment.

Response:

P302 + P352 : IF ON SKIN: Wash with plenty of water.
P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.
P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 : Store locked up.

Disposal:

P501 : Dispose of contents or container to an approved waste disposal plant.

2.3. Other hazards : None.

Other:

Results of PBT and vPvB assessment : According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical name ¹	EC-No.	CAS-No.	Concentration	Classification REGULATION (EC) No 1272/2008
Nitrosodiphenylamine	201-663-0	86-30-6	>= 83 %	Skin Sens.1A; H317 Repr.2; H361d Carc.2; H351 STOT RE2; H373 Aquatic Chronic1; H410 M-Factor Chronic = 1

¹: See chapter 14 for Proper Shipping Name

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:

Take off immediately all contaminated clothing.

Inhalation:

Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.
In case of persistent problems : Hospitalise.

Skin contact:

Wash off immediately with soap and plenty of water.
In the case of skin irritation or allergic reactions see a physician.

Eye contact:

Wash well-open eyes immediately, abundantly and thoroughly with water. Consult an ophthalmologist immediately.

Ingestion:

If swallowed, do not induce vomiting - seek medical advice.

Protection of first-aiders:

In case of insufficient ventilation, wear suitable respiratory equipment.

4.2. Most important symptoms/effects, acute and delayed: No data available.

4.3. Indication of immediate medical attention and special treatment needed, if necessary: No data available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Foam, Dry powder

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Unsuitable extinguishing media: All other extinguishants

5.2. Special hazards arising from the substance or mixture:

Thermal decomposition gives : , Temperature exceeding 280 °C:
Sulphur oxides, Nitrogen oxides (NOx)

5.3. Advice for firefighters:

Specific methods:

Remove all sources of ignition. Suppress gases, fumes and/or dust with water spray jet.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Avoid contact with skin and eyes and inhalation of dust.

6.2. Environmental precautions:

Do not let product enter drains. Do not contaminate surface water.

6.3. Methods and materials for containment and cleaning up:

Recovery:

Shovel or sweep up. Recover the product and place in a dry labelled container.

Elimination:

Destroy the product by incineration (in accordance with local and national regulations).

6.4. Reference to other sections: None.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Technical measures/Precautions:

Storage and handling precautions applicable to products: Dust forming. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Provide water supplies, ocular fountains and showers near the point of use.

Hygiene measures:

General industrial hygiene practice. Avoid contact with skin, eyes and clothing. Avoid breathing dust.
Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Keep in a well-ventilated place. Keep in a dry place. Store protected from moisture.

Incompatible products:

Strong acids Oxidizing agents

Packaging material:

Recommended: Paper bags, Big bags.

7.3. Specific end use(s): None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values Not relevant

Derived No Effect Level (DNEL):

End Use	Inhalation	Ingestion	Skin contact
Workers	0,82 mg/m3 (LT, SE)		0,23 mg/kg (LT, SE)
Consumers	1,15 mg/m3 (LT, SE)	0,08 mg/kg (LT, SE)	0,08 mg/kg (LT, SE)

LE : Local effects, **SE** : Systemic effects, **LT** : Long term, **ST** : Short term

Predicted No Effect Concentration:

Compartment:	Value:

Water	0,0015 mg/l
Water (Intermittent release)	0,04 mg/l
Marine water	0,00015 mg/l
Fresh water sediment	0,16 mg/kg dw
Marine sediment	0,016 mg/kg dw
Soil	0,109 mg/kg dw

8.2. Exposure controls:

General protective measures: Ensure sufficient air exchange and/or exhaust in work areas

Personal protective equipment:

Respiratory protection: Effective dust mask
 Hand protection: Impervious gloves
 Eye/face protection: Tightly fitting safety goggles
 Skin and body protection: At the workplace : Protective suit.

Environmental exposure controls: See chapter 6

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****Appearance:**

Physical state (20°C): solid (20 °C)
Form: coarse powder
Colour: beige
Granulometry: D50 : > 1 mm
 D10 : 500 µm
Odour: characteristic
Olfactory threshold: No data available.
pH: Not applicable
Melting point/range : 65 - 70 °C
Boiling temperature : 101 °C
Flash point: No data available
Evaporation rate: No data available.
Flammability (solid, gas): No data available.
Vapour pressure: approximately 0,09 Pa , at 25 °C
Vapour density: No data available.
Density: 1.270 g/cm³
Bulk density: 650 kg/m³
Water solubility: 35,1 mg/l at 25 °C
Partition coefficient: n-octanol/water: log Kow : 3,13 , at 25 °C, Slightly bioaccumulable.
Auto-ignition temperature: Non flammable product
Decomposition temperature: No data available.
Viscosity: No data available.
Explosive properties:
 Explosivity: Not explosive
Oxidizing properties: No data available.

9.2. Other data:

Solubility in other solvents: Soluble in: Alcohol
 Acetone
 Chloroform

10. STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

10.2. Chemical stability:

Product stable in the absence of moisture

10.3. Possibility of hazardous reactions: No data available.

10.4. Conditions to avoid:

Store protected from moisture and heat. Protect from light. Keep away from direct sunlight.

10.5. Incompatible materials to avoid: No data available.

10.6. Hazardous decomposition products:

Thermal decomposition gives : Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

All available data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

11.1. Information on toxicological effects:

Acute toxicity:

Inhalation:

No data available.

Ingestion:

• In animals :

May be harmful if swallowed.

LD50/Rat: > 2.000 mg/kg (Method: OECD Test Guideline 423)

Dermal:

• In animals :

Slightly or not harmful in contact with skin

No mortality/Rat: 2.000 mg/kg (Method: OECD Test Guideline 402)

Local effects (Corrosion / Irritation / Serious eye damage):

Skin contact:

Non irritating to skin

No skin irritation (OECD Test Guideline 439, In vitro)

Eye contact:

Not irritating to the eyes.

No eye irritation (OECD Test Guideline 437, In vitro)

Respiratory or skin sensitisation:

Inhalation:

No data available.

Skin contact:

May cause an allergic skin reaction.

Strong skin sensitizer

Active (Method: OECD Test Guideline 442C Direct peptide reactivity assay (DPRA))

Active (Method: OECD Test Guideline 442D KeratinoSens assay)

CMR effects :

Mutagenicity:

According to available experimental data: Overall not genotoxic

In vitro

Positive results were obtained in some in vitro tests.

In vivo

According to available experimental data:, Overall not genotoxic

Carcinogenicity:

• In animals :

Suspected of causing cancer.

Absence of carcinogenic effects (Mouse, Chronic, By oral route)

Carcinogenic effects shown experimentally in animals, Target organs: Bladder (Rat)

Reproductive toxicity:

Fertility:

• In animals :

Based on the available data, the substance is not suspected of having reprotoxic potential.

Reproductive/Developmental Effects Screening Assay: Absence of toxic effects on fertility

NOAEL (Parental toxicity): 50 mg/kg bw/day

NOAEL (Fertility): 150 mg/kg body weight

(Method: OECD Test Guideline 422, Rat, By oral route)

Foetal development:

• In animals :

Suspected of damaging the unborn child.

Reproductive/Developmental Effects Screening Assay: Embryotoxic effects and adverse effects on the offspring were detected.

NOAEL (Developmental Toxicity): 15 mg/kg bw/day

NOAEL (Maternal Toxicity): 50 mg/kg bw/day

(Method: OECD Test Guideline 422, Rat, By oral route)

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Specific target organ toxicity :

Single exposure : No data available.

Repeated exposure: **The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.**
Target Organs : Bladder

- In animals : By oral route: toxic effects
Target organs: Bladder, spleen, NOAEL= 50 mg/kg, LOAEL= 150 mg/kg (Method: OECD Test Guideline 422, Rat, 28 d)

Aspiration hazard: Not relevant

12. ECOLOGICAL INFORMATION

Ecotoxicology Assessment: All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

Acute aquatic toxicity : Toxic to aquatic life.
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.1. Acute toxicity :

Fish: **Harmful to fish.**
LC50, 96 h (Oryzias latipes (medaka)) : 10,2 mg/l (Method: OECD Test Guideline 201)

Aquatic invertebrates: **Harmful to daphnia.**
EC50, 48 h (Daphnia magna (Water flea)) : 10,1 mg/l (Method: OECD Test Guideline 202, Immobilization)

Aquatic plants: **Toxic to algae.**
ErC50, 72 h (Pseudokirchneriella subcapitata (green algae)) : > 4 mg/l (Method: OECD Test Guideline 201)

Microorganisms: NOEC, 3 h (Activated sludge) : > 1.000 mg/l (Method: OECD Test Guideline 209, Respiration inhibition of activated sludge)

Aquatic toxicity / Long term toxicity:

Aquatic invertebrates: NOEC, 21 d (Daphnia magna (Water flea)) : 0,075 mg/l (Method: OECD Test Guideline 211, Reproduction inhibition)

Aquatic plants: ErC10, 72 h (Pseudokirchneriella subcapitata (green algae)) : 2,2 mg/l (Method: OECD Test Guideline 201)

M-Factor: Chronic = 1

Non aquatic toxicity / Acute toxicity :

Toxicity to soil dwelling organisms: LC50, 14 d (Eisenia fetida) : 161 mg/kg (Soil dw) (Method: OECD Test Guideline 207, mortality)

12.2. Persistence and degradability :

Biodegradation (In water): **Not readily biodegradable.**
Not readily biodegradable.: (Method: No information available.)

12.3. Bioaccumulative potential :

Bioaccumulation: **Bioaccumulation is unlikely.**
Partition coefficient: n-octanol/water: log Kow : 3,13 , at 25 °C, Slightly bioaccumulable.
Bioconcentration factor (BCF): < 217 (14 d, 22 °C, Method: measured, Lepomis macrochirus (Bluegill sunfish))

12.4. Mobility in soil - Distribution among environmental compartments:

Vapor pressure: approximately 0,09 Pa, 25 °C

Absorption / desorption: log Koc: 3 (Method: OECD Test Guideline 121)

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12.5. Results of PBT and vPvB assessment :

According to REACH regulation, annex XIII, the substance does not meet PBT and vPvB criteria.

12.6. **Other adverse effects:** None known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment:

- Disposal of product:** Destroy the product by incineration (in accordance with local and national regulations).
- Disposal of packaging:** Destroy packaging by incineration at an approved waste disposal site (in accordance with local and national regulations).

14. TRANSPORT INFORMATION

Regulation	14.1. UN number	14.2. UN proper shipping name	14.3. Class ^s *	Label	14.4. PG [*]	14.5. Environmental hazards	14.6. Special precautions for user
ADR	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (NITROSODIPHENYLAMINE)	9	9	III	yes	
ADN	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (NITROSODIPHENYLAMINE)	9	9	III	yes	
RID	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (NITROSODIPHENYLAMINE)	9	9	III	yes	
IATA Cargo	3077	Environmentally hazardous substance, solid, n.o.s. (Nitrosodiphenylamine)	9	9MI	III	yes	
IATA Passenger	3077	Environmentally hazardous substance, solid, n.o.s. (Nitrosodiphenylamine)	9	9MI	III	yes	
IMDG	3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (NITROSODIPHENYLAMINE)	9	9	III	Marine pollutant	EmS Number: F-A, S-F Mark: MP

*Description: 14.3. Transport hazard class(es)
14.4. Packing group

14.7. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

15. REGULATORY INFORMATION

Safety data sheets: accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)

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

15.2. **Chemical safety assessment:** None.

INVENTORIES:

EINECS: Conforms to
TSCA: Conforms to
DSL: All components of this product are on the Canadian DSL
IECSC (CN): Conforms to
ENCS (JP): Conforms to
ISHL (JP): Conforms to
KECI (KR): Conforms to
PICCS (PH): Does not conform
AICS: Conforms to
NZIOC: Conforms to

16. OTHER INFORMATION

Full text of H, EUH-phrases referred to under sections 2 and 3

H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

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H410 Very toxic to aquatic life with long lasting effects.

Update:

Safety datasheet sections which have been updated:		Type:
1	1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING, Emergency telephone number	Revisions
3	3. COMPOSITION/INFORMATION ON INGREDIENTS	Revisions

Thesaurus:

NOAEL : No Observed Adverse Effect Level (NOAEL)
LOAEL : Lowest Observed Adverse Effect Level (LOAEL)
bw : Body weight
food : oral feed
dw : Dry weight
vPvB : very Persistent and very Bioaccumulative
PBT : Persistent, Bioaccumulative and Toxic

This information applies to the PRODUCT AS SUCH and conforming to specifications of ARKEMA. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).