

SAFETY DATA SHEET

(According to EC-Directive 2001/58/EC)

NASIKA ETU-80

1. - MIXTURE AND COMPANY IDENTIFICATION

1.1. MIXTURE IDENTIFICATION

TRADE NAME: NASIKA ETU-80

RAW MATERIAL CHEMICAL NAME: N, N'-Ethylene thiourea

RAW MATERIAL FORMULA: C₃H₆N₂S

RAW MATERIAL CAS NUMBER: 96-45-7

RAW MATERIAL EEC NUMBER (EINECS): 202-506-9

ANNEXED I NUMBER (Dir. 67/548/CEE) OF THE RAW MATERIAL: 613-039-00-9

1.2 INTENDED USE

Vulcanization agent

1.3 COMPANY IDENTIFICATION

NASIKA PRODUCTS, S.A. "NASIKA"

C / La Torrecilla s/n

Polígono Tejerías Sur

26500 CALAHORRA - LA RIOJA

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Tel. +34 941131550

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1.4 EMERGENCY TELEPHONE NUMBER

NATIONAL TOXICOLOGY INSTITUTE: +34 915620420

NASIKA: +34 941131550

2. - COMPOSITION / COMPONENTS INFORMATION

GENERAL COMPOSITION: 20% POLYMERS + DISPERSING AGENTS
80% ETU ACCELERATOR

COMPONENTS

1. - ETU ACCELERATOR (N,N'-Ethylene thiourea)
CAS NUMBER: 96-45-7 CLASSIFICATION: T
(R) 22 - 52/53 - 61
(S) 45 - 53 - 61

2.- RUBBER ETHYLENE-PROPYLENE
CAS NUMBER: 25038-36-2 CLASSIFICATION: None

3.- PARAFFINIC OIL
CAS NUMBER: ----- CLASSIFICATION: None

OTHER INFORMATION: Raw material formula: C₃H₆N₂S

3. - HAZARDS IDENTIFICATION

3.1 GENERAL HAZARDS

TOXIC

Harmful if swallowed.

Risk during pregnancy of noxious effects for the fetus.

Harmful to aquatic organisms.

3.2 HAZARDS FOR PEOPLE

INHALATION. - NASIKA ETU-80 cannot be considered irritant for the respiratory system, the possibility of being breathed is practically null since the powdered product is included in an elastomeric mass. The powdered raw material can cause irritation of the breathing tract.

INGESTION. - It is not frequent and it is easy to avoid. NASIKA ETU-80 is noxious for ingestion.

SKIN AND EYES CONTACT. - It may cause irritation by eyes contact.

Possibility of sensitization by skin contact. Skin is one entrance way.

REPRODUCTION. - Risk during the pregnancy of harmful effects for the fetus.

3.3 HAZARDS FOR THE ENVIRONMENT

Harmful to aquatic organisms.

4. - FIRST AID MEASURES

4.1. IN GENERAL: In all cases of doubt or if the symptoms persist, request medical attention.

4.2. SYMPTOMS AND EFFECTS: Harmful if swallowed. Irritating to eyes (the powdered raw material is also irritating to respiratory tract). Possibility of sensitization by skin contact.
Harmful effects for the fetus.

4.3. FIRST AID

INHALATION: It is not necessary to make any specific recommendation for not being dangerous, but if any reaction takes place, move the person to fresh air. In extreme cases, seek medical attention.

SKIN CONTACT: Remove immediately the polluted clothes and wash them before using again. Wash the affected skin area with water and soap. If irritation persists, request medical attention.

EYES CONTACT: Rinse eyes with plenty of water at least for 15 minutes. It is advisable eyes-washer system. If irritation is developed request medical care.

INGESTION: Rinse mouth. Consult immediately a doctor.

5. – FIRE-FIGHTING MEASURES

5.1 APPROPRIATE AGENTS OF EXTINCTION: Foam, dry chemical powder, CO₂ and pulverized water.

5.2 CONTRAINDICATION: Water jet, because it disperses the material.

5.3 SPECIAL RISKS: Release toxic and irritant fumes from the combustion (combustion products: oxides of S, N).

5.4 PROTECTIVE EQUIPMENTS: Wear gloves and heat-resistant clothing and autonomous breathing apparatus.

5.5 GENERAL MEASURES: Move the recipients away from the fire area if it can be made without risk.
Try to keep the staff not implied in the extinction job far away of the fire area.
If it is not possible to control the fire, leave the area.
Do not allow the spills of the fire-fighting to enter drainages or water pipes.
Consult the existent emergency procedures.

6. - ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS: See section 8.

6.2 ENVIRONMENT PRECAUTIONS: Do not flush into the sewer system and fluvial beds.
Avoid the environment dumping.

6.3 METHODS FOR CLEANING UP: If a material escape from its recipient takes place it is enough to sweep and pick up the product with shovels or other means and introduce them in plastic bags or clean drums for their recycling (preferably) or disposal.

7. - HANDLING AND STORAGE

7.1 HANDLING:

General precautions: Endow the handling and storage surrounding with efficient ventilation.
Prevents the powder formation.
Avoid contact with eyes and skin
Do not smoke, eat or drink during handling.
Wear protection clothes to avoid the direct contact, wash the hands using neutral soap.

Fire and explosion prevention: Remove ignition sources, sparks, intense flames and static electricity in the storage areas. The mixtures of air and powder can ignite violently if they are exposed to sparks or ignition sources.

7.2 STORAGE REQUIREMENTS:

Store in cool, dry and well ventilated places. Respect the legislations of storage incompatibilities.

8. – EXPOSURE CONTROL / PERSONAL PROTECTION.

TECHNICAL MEASURES: Avoid the powder generation. Adequate place ventilation. Avoid ignition sources.

EXPOSURE LIMITS: In our country, for this product and its raw material are not established exposure limits so the data applied are the following ones:

Particles not classified in another way (PNCOF): VLA-ED: Inhalable fraction 10 mg/m³
Breathable fraction: 3 mg/m³

Inhalation or skin contact is strictly forbidden in pregnant women.
Must absolutely avoid ingestion.

PERSONAL PROTECTION:

Respiratory protection: In the event of powder formation (it is not habitual), wear masks. Do not breathe the powder.
Hands protection: Wear appropriate protective gloves.

Skin protection: Wear appropriate protective clothing.

Eyes protection: Wear protective goggles or sight to avoid projections to the eyes during the product handling.

Hygienic measures: Eyes washers and showers in the working place. Hot water showers should be used, use neuter soaps, as much as the clothes as the elements of protection should be changed with certain frequency and be cleaned. The much polluted clothes should be changed by other clean ones. The state of gloves should be revised to avoid internal contaminations.

9. - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: See specifications data sheet

ODOUR: Characteristic.

pH: Not determined

BOILING POINT: Not determined

IGNITION POINT: Raw material 195-205 °C

FLAMMABILITY: Not determined

EXPLOSION PROPERTIES: Not determined.

OXIDISING PROPERTIES: Not determined

VAPOUR PRESSURE: Not determined

RELATIVE DENSITY: See specifications data sheet

SOLUBILITY: IN WATER: Raw material: 9 gr/l

IN OTHER SOLVENTS: Raw material: Chloroform, acetone, alcohol

PARTITION COEFFICIENT n-OCTANOL/WATER: Not determined

VISCOSITY: See specifications data sheet

VAPOUR DENSITY: Not determined

EVAPORATION SPEED: Not determined

10. - STABILITY AND REACTIVITY

STABILITY: This product is stable under the recommended handling and storage conditions.

CONDITIONS TO AVOID: Humidity, heat and ignition sources, or long exposure to air and light.

MATERIALS TO AVOID: Avoid the contact with strong oxidizers and strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: When decomposing it gives out toxic and irritating fumes
During the combustion it gives place to oxides of carbon, sulphur and nitrogen.

OTHER INFORMATION: During its processing the product will be sublimated and volatilized considerably.

11. - TOXICOLOGICAL INFORMATION

Experimental toxicological data of this preparation do not exist, but it is expected to be similar to those of the powdered raw material (maybe the preparation could be less toxic due to 80% concentration):

Valid data for the raw materials → N,N'-Ethylene thiourea:

ACUTE TOXICITY

Oral LD₅₀ rat: 545 - 1832 mg/kg

Dermal LD₅₀ rat: >2250 mg/kg (practically non harmful)

LOCAL EFFECTS

Skin In animals (rabbit): Non-irritating.
 Eyes In animals (rabbit): Non-irritating.

SENSITIZATION

Skin contact In animals (guinea pig): skin sensitizing
 In human beings: Some cases of skin sensitization have been reported

SPECIFIC EFFECTS

In vivo and in vitro: Non genotoxic
 CIRC classification: category 3
 Toxic effects on fetus development.

12. - ECOLOGICAL INFORMATION

Experimental ecological data of this preparation do not exist, but it is expected to be similar to those of the powdered raw material (maybe the preparation could be less ecotoxic due to 80% concentration):

Valid data for the raw materials → N,N'-Ethylene thiourea:

MOBILITY Adsorption: log koc = 0.8

PERSISTENCE AND DEGRADABILITY

In water Biodegradation: 0% after 14 days
 In air Degradable in atmosphere: $t_{1/2} = 3h$
 In ground and sediments Biodegradable in ground

BIOACCUMULATION Bioconcentration factor (FBC): < 0.2 -1.8 (Fish: Cyprinus Carpio)

ECOTOXICITY:

ACUTE TOXICITY: FISH-96h-LC₅₀ (Poecilia reticulata): 7500 mg/l (practically non harmful)
 DAPHNIA-48h-EC₅₀ (Daphnia magna): 26.4 mg/l (harmful)
 ALGAE-96h-EC₅₀ (Clorella pyrenoidosa): 6600 mg/l (practically non harmful)
 BACTERIA: LOED: 1 mg/l
 LONG TERM TOXICITY: DAPHNIA-21 days-LC₅₀ (Daphnia magna): 18 mg/l

13. – DISPOSAL CONSIDERATIONS

PRODUCT: Re-use or recycle the material whenever it is possible.

If disposal is decided, make it according to the local, autonomous, national or community effective regulations (the most probable thing is controlled incineration).

Consider it as hazardous residue.

Handling: correctly sealed and labelled containers

POLLUTED PACKAGING:

INTERNAL PLASTIC BAG: It will be treated as hazardous residue because it has been in direct contact with the product (which is one dangerous material). Follow the regulations in force.

EXTERNAL CARDBOARD BOX: It will be able to be treated as a normal cardboard box because we consider that it has not been in direct contact with the product. In consequence, it will be disposed according to the regulations about containers that are applicable in each moment and geographical localization.

If in some case this packaging was in direct contact with the product (for example if the interior plastic bag was broken), it would be considered it as hazardous residue.

14. – TRANSPORT INFORMATION

SPECIAL PRECAUTIONS: Stable at room temperature during the transport.

To avoid the pouring, transport it in secured containers correctly sealed and labelled.

COMPLEMENTARY INFORMATION:**Land transport (ADR/RID)**

ADR / RID class: --

UN number: ----

Packing Group: ---

Hazard identification number: ---

Hazard Label number: ----

Sea transport (IMO / IMDG code)

IMO / IMDG code:--

UN number: None

Class: --

Packing group: None

Air transport (ICAO-TI / IATA-DGR)

Class: --

Packing group: None

UN number: None

15. - REGULATORY INFORMATION**DENOMINATION:** NASIKA ETU-80**CHEMICAL DESCRIPTION:** It contains N,N'-Ethylene thiourea**CLASSIFICATION AND LABELLING:****SYMBOLS:**

T = Tóxico

RISK PHRASES:

R 22 Harmful if swallowed

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R 61 May cause harm to the unborn child

SECURITY PHRASES:

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S 53 Avoid exposure - obtain special instructions before use

S 61 Avoid release to the environment. Refer to special instructions/safety data sheet

LABELLING ACCORDING TO EC DIRECTIVES**16. -OTHER INFORMATION**

The information given in this document has been gathered based on the best existent sources and with the best available knowledge, in accordance with the effective legal requirements about information, packaging, labelling of hazardous chemicals. This neither implies nor guarantees that the information is either complete or correct in all the cases. It is responsibility of the user to decide if this safety data sheet satisfies the requirements for the specific application to which the user dedicates it.

It is noticed that, due to the inclusion of the powdered raw material in an elastomeric mass, we consider that the risks of inhalation for the breathing tract are annulled (this approach prevails during the whole elaboration of this safety data sheet).

DC-091-5/b

NASIKA

NASIKA ETU-80

R-PHRASES INFORMATION:

R 22 Harmful if swallowed

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R 61 May cause harm to the unborn child

CHANGES IN RELATION TO THE LAST REVISION: 1, 7, 12, 15, 16