



DUSLO
akciová spoločnosť

Safety Data Sheet

in accordance with Commission Directive 2001/58/EC

Product trade name: **DUSLIN[®] P**

Date of issue: June, 2008

1. Identification of the substance and of the company

1.1 Identification of the substance:

Trade name: Duslin[®] P
Chemical name: N-cyclohexylthiophthalimide (CTP)
Other name: PVI (prevulcanization inhibitor)

1.2. Use of the substance

Duslin[®] P is a high effective pre-vulcanization inhibitor of rubbers especially of diene compounds with cure system consisting of sulfur and tiazole but mainly sulfenamide accelerators.

1.3. Company identification

Producer: DUSLO, a. s.
927 03 ĽA A, Slovak Republic
Tel.: 00421/31/7753388,
Fax: 00421/31/7753018,
e-mail: marketing@duslo.sk

Tel.: 00421/31/7753328,
Fax: 00421/31/7753015,

1.4. Emergency telephone: 00421/31/7754112 (Works dispatching centre)

2. Composition/information on ingredients

Chemical characteristics of the substance:

N-cyclohexylthiophthalimide content: min. 98.0 %
Summary formula: C₁₄H₁₅O₂SN

Classification of substance: **Xi** (Irritant), **N** (Dangerous for the environment)
R 43, R 50/53, S 22, S 24, S 37, S 60

Identification numbers:

CAS No.: 17 796-82-6
EINECS No.: 241-774-1

Information about admixtures: stabilisers are not used.

3. Hazards identification

Attention to dangers: flammable substance and its dust mixture with air is explosive, lower explosives limit of the dust is 13.5%.

Health effects for human and environment: maximum allowable concentration in air is 1 mg.m⁻³.

4. First-aid measures

Information about first-aid:

- general rules for working with organic substances are valid

- avoid breathing of CTP dust by mask with adsorption filter
- after contact of skin with CTP wash irritated places with water and soap
- after penetrating of CTP to eyes immediately rinse with clean water and seek medical care
- if swallowed, induce vomiting and seek medical care immediately

Warning for the doctor: CTP is water insoluble, it is soluble in cyclohexane and toluene. If swallowed, convenient sorbent may be activated charcoal.

5. Fire-fighting measures

Suitable extinguishing media: foam

Unsuitable extinguishing media: sand, CO₂

Combustion products: CO₂ + H₂O + SO₂ + NO_x , if insufficient air by combustion the poisonous CO may arise.

Especial protective, means for firemen: respirator.

6. Accidental release measures

Safety precautions for operators: to prevent the contact of the substance with glowing articles and to prevent the initiating of fire or explosion of CTP dust with air.

Safety precautions for environment protection: to prevent the leak of the substance into drainage, waters and soil, CTP is water insoluble, heavier than water and sediments as sludge.

The way of clearance: collection of contaminated dust into a vessel for wastes or liquidation in incinerating plant.

7. Handling and storage

7.1. Handling

To handle as with flammables, of which the dust with air is explosive. Electronic installation in spaces of handling with Duslin® P must be in accordance with regulations for explosive environment. Handling with opened fire is forbidden. The empty wrappings from Duslin® P must be rid of substance rests on walls before repairing (cleaning by means of detergents etc.). The empty paper bags to liquidate in incinerating plant of wastes.

7.2 . Storage

- in original multi-layer paper bags on pallets loaded in one layer only
- or in closed tanks with venting trough dust filter under slight overpressure of nitrogen atmosphere
- adequate amount and volume of extinguishing technique
- electric installation and lighting into explosive spaces.

8. Exposure controls/ personal protection

8.1. Technical precautions:

See Item 7.

8.2. Advices to components for monitoring of their limited values:

CTP does not contain such components.

8.3. Personal protective means:

In the presence of CTP in atmosphere to use protective mask with adsorption antidust filter.

Protection of eyes with goggles or shield.

Protection of skin and hands: working clothes and shoes, protective leather of rubber gloves.

9. Physical and chemical properties

Appearance: white or pale-cream crystalline powder
Odour: slight

Melting point: 91-92 °C
Boiling point at 101.3 kPa: decomposes
Flash point: 204.0 °C
Ignition point: 298.0 °C
Explosion limits: lower - dust: 13.5 % vol.
Density 20°C (powder): 1340.0 kg. m⁻³
Density 95 °C (liquid): 1170.0 kg. m⁻³
Bulk density 420-430 kg. m⁻³

Solubility:

Soluble in: tetrachlormethane, toluene, cyclohexane
Insoluble: in water

Viscosity at: 97 °C 102.50 mPa.s
98 °C 68.5 mPa.s
100 °C 26.4 mPa.s

Solvent content: does not contain

10. Stability and reactivity

CTP is relatively chemically stable and non-volatile substance. It shows non-corrosive effects on metals. It decomposes at temperatures around 120 °C. No dangerous reactions are known.

11. Toxicological information

CTP primarily irritates the skin. If application is over, the skin redness disappears quickly. It irritates the eye mucous membrane.

LD₅₀ = 5.34 g.kg⁻¹ (4.563 - 6.249) - very slightly poisonous.

Eye test: degree of injury = 5, harmful, mucous membrane strongly blood rushed, blistered, efflux.

Skin test: degree of injury = 2, very slightly harmful

Maximum allowable dust concentration in the air is 1 mg. m⁻³

12. Ecological information

The concentration 20 mg.l⁻¹ of CTP in water inhibits the 1st degree of microbiological nitrification to 50 % (Nitrosomonas) and concentration 105 mg. l⁻¹ inhibits the 2nd degree of nitrification (Nitrobacter).

WGK = 2, according WTR product list

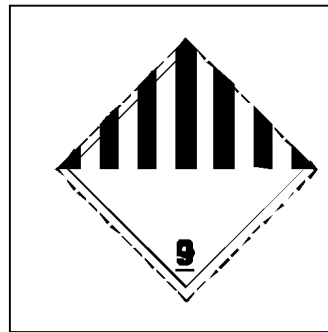
13. Disposal consideration

Unconsumed or strongly contaminated CTP can be safely liquidated in waste incinerating plant.

14. Transport information

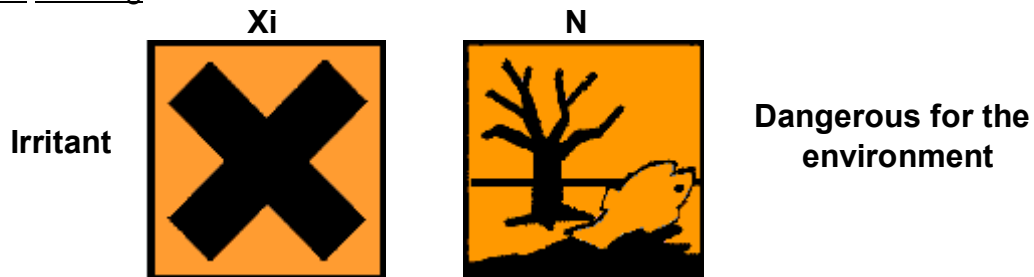
UN No: 3077
RID /ADR: 9/12 c

Transport label



15. Regulatory information

Characteristic labelling:



R - phrases:

R 43 May cause sensitization by skin contact.
R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S – phrases:

S 22 Do not breathe dust.
S 24 Avoid contact with skin.
S 37 Wear suitable gloves.
S 60 This material and its container must be disposed of as hazardous waste.

16. Other information

Material safety data sheet has been elaborated by:

DUSLO a. s.
Pre-vulcanization Inhibitor Division
927 03 Ťa a, Slovak Republic
Contacting tel. No.: 00421/31/7754739

Above mentioned data were available by 24. 4. 2003. These one relate to the specified product and need not be valid when mixed with other materials. The customer should make sure that all these data are identical with regional statutory and legal regulations in specified country and if are complete and applicable for his purpose.