

PIPERAZINE (ANH)

SECTION 1: PRODUCT IDENTIFICATION

Product Name: PIPERAZINE (ANH)

Product Code: 770

CAS#: 110-85-0

Chemical Formula: C₄H₁₀N₂

Molecular Formula: 86.14g/mol

Formula Weight: NA

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Synonyms: 1,4-Diazacyclohexane, Diethylenediamine

Formula: C₄H₁₀N₂

Molecular Weight: 86.14g/mol

CAS-No.: 110-85-0

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammable solids, (Category 1) H228: Flammable solid.

Skin corrosion, (Sub-category 1B) H314: Causes severe skin burns and eye damage.

Serious eye damage, (Category 1) H318: Causes serious eye damage.

Respiratory sensitization, (Subcategory 1B) H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization, (Sub-category 1B) H317: May cause an allergic skin reaction.

Reproductive toxicity, (Category 2) H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

Supplemental Hazard Statements none

Other hazards This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture 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: The substance/mixture 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.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact: rinse out with plenty of water. Remove contact lenses.

Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Serious Inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician

If swallowed: immediately make victim drink water (two glasses at most). Rinse mouth with water. Consult a physician.

Serious Ingestion: Not available

Most important symptoms and effects, both acute and delay No data available

Indication of any immediate medical attention and special treatment needed no data available

SECTION 5: FIRE AND EXPLOSION DATA

Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture Carbon Oxides, Nitrogen oxides (NO_x), Combustible. Development of hazardous combustion gases or vapours possible in the event of fire

Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s) A part from the uses no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Personal protective equipment

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance Form	: Colourless to pale yellow crystalline powder/flakes.
Odour	: Not available
Taste	: Not available
Molecular Weight	: Not available
Colour	: Not available
pH	: Not available
Boiling Point	: Not available
Melting Point	: Not available



Critical Temperature	: Not available
Specific Density	: Not Available
Vapor Pressure	: Not Available
Vapor Density	: Not available
Volatility	: Not Available
Odor Threshold	: Not Available
Water/Oil Dist. Coeff.	: Not Available
Ionicity (in Water)	: Not Available
Dispersion Properties	: Not Available
Solubility	: Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity no data available

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions no data available

Conditions to avoid no data available

Incompatible materials Strong oxidizing agents

Hazardous decomposition products **Other decomposition products** - no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity LD50 Oral - Rat - male and female - 2.600 mg/kg (OECD Test Guideline 401)

Inhalation: No data available LD50

Dermal - Rabbit - male and female - 8.300 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation Skin –

Skin - Rabbit Result: Corrosive (OECD Test Guideline 431)

Serious eye damage/eye irritation Remarks: Causes serious eye damage.

Local lymph node assay (LLNA) - Mouse **Result:** positive (OECD Test Guideline 429) May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Metabolic activation: Metabolic activation

Method: OECD Test Guideline 476

Result: positive

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Gavage

Method: OECD Test Guideline 474

Result: negative



Carcinogenicity no data available

Reproductive toxicity Suspected of damaging the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - no data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity no data available

Persistence and degradability no data available

Bio-accumulative potential no data available

Mobility in soil no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not data available

Other adverse affects no data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID:

IMDG:

IATA:

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class(es):

ADR/RID:

IMDG:

IATA:

Packaging group:

ADR/RID:

IMDG:

IATA:

Environmental hazards:

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

SECTION 15: OTHER REGULATORY INFORMATION

Regulatory information This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical Safety Assessment: For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements

Not Available

Other Special Considerations: Not available.

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user 's obligation to investigate and determine the suitability of the information for their particular purpose.

