Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET

(MSDS)

According to regulation (EU) no.1907/2006

PICRIC ACID MOISTENED WITH 50% WATER AR

PRODUCT CODE : O-5135

CAS No : 88-89-1

FORMULA : $C_6H_3N_3O_7$

UN No : 1344

website : www.labotiq.net

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
PICRIC ACID MOISTENED WITH 50% WATER AR

MSDS Number : 0266 | Date : Aug 28th, 2024 | Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Name : **PICRIC ACID MOISTENED WITH 50% WATER AR**
Synonyms : 2,4,6-Trinitrophenol, Picronitric Acid
CAS No. : 88-89-1
HS Code : 2908 99 90
Chemical Formula : $C_6H_3N_3O_7$
Molecular Weight : 229.11 g/mol
Product Code : O-5135
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : intralab@indo.net.id,
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Desensitized explosives (Category 1), H206
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 3), H311

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word	Danger
Hazard statement(s)	
H206	Fire, blast or projection hazard; increased risk of explosion if desensitizing agent is reduced.
H302	Harmful if swallowed.
H311 + H331	Toxic in contact with skin or if inhaled.
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P212	Avoid heating under confinement or reduction of the desensitizing agent.
P230	Keep wetted with water.
P233	Keep container tightly closed.

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P370 + P380 + P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P501	Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard Statements	none

2.3 Other hazards

This substance/mixture 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. Explosive with or without contact with air.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : 2,4,6-Trinitrophenol, Picronitric Acid
Formula : $C_6H_3N_3O_7$
Molecular weight : 229.11 g/mol
CAS-No. : 88-89-1
EC-No. : 201-865-9
Index-No. : 609-009-00-X

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Picric Acid CAS-No. 88-89-1 EC-No. 201-865-9 Index-No. 609-009-00-X	Expl. 1.1; Acute Tox. 3; Skin Sens. 1; H201, H301, H331, H311, H317	<=100 %

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water Foam, Carbon dioxide (CO2), Dry powder

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Nitrogen oxides (NOx), Combustible. Explosive decomposition possible on heating. Forms explosive mixtures with air on intense heating. Avoid shock and friction. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. In the event of decomposition: danger of explosion! Forms explosive mixtures with air on intense heating

5.3 Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 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

6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
Work under hood. Do not inhale substance/mixture.

Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
Keep locked up or in an area accessible only to qualified or authorized persons. Tightly closed and away from sources of ignition and heat. Observe national regulations. Keep wetted with water. Do not allow material to become dry.

Storage class
Storage class (TRGS 510): 4.1A: Other explosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriat engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Face shield and safety glasses 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740, Size M)

Body Protection
protective clothing

Respiratory protection
required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
Recommended Filter type: Filter type P3
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: solid
Appearance	Form: solid Colour: yellow
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	Melting point/range: 121 °C
Initial boiling point and boiling range	No data available
Flash point	150 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.800 g/cm3 at 20 °C
Water solubility	soluble
Partition coefficient: noctanol/water	log Pow: 1.33
Auto-ignition temperature	300 °C
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

sensitive to shock

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed

10.2 Chemical stability

heat-sensitive

The product is chemically stable under standard ambient conditions (room temperature) . Contains the following stabilizer(s): water (>=30 - <=40 %)

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Picric acid forms salts with many metals some of which are rather sensitiv nickel, copper, etc., and should be considered dangerously sensitive. The complexes with aromatic hydrocarbons, etc, are in general not so sensitiv the friction-sensitive calcium salt. Dry mixtures of picric acid and alum ignition after a delay dependent upon the quantity added. Storage conditi each container. Material older than 2 years should be disposed. Inspect a to distribute water every three months. Heat, flames and sparks.

10.5 Incompatible materials

Strong bases, Reducing agents, Heavy metals, Heavy metal salts, Ammoniavarious plastics

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity estimate Oral - 307,69 mg/kg (Calculation method)
LD50 Oral - Rat - 200 mg/kg (picric acid)

Acute toxicity estimate Inhalation - 4 h - 0,7708 mg/l (Calculation method)
Inhalation: No data available

Acute toxicity estimate Dermal - 461,54 mg/kg (Calculation method)
Dermal: No data available
LD50 Intraperitoneal - Mouse - 56,3 mg/kg (picric acid)

Skin corrosion/irritation

No data available(Picric Acid)

Serious eye damage/eye irritation

Eyes - Rabbit (picric acid)
Result: No eye irritation)

Respiratory or skin sensitisation
No data available
No data available(Picric Acid)

Germ cell mutagenicity
No data available
No data available(Picric Acid)

Carcinogenicity
No data available

Reproductive toxicity
No data available
No data available(Picric Acid)

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
Assessment :
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. Discoloration of the skin., Picric acid dust causes sensitization dermatitis. This usually occurs on the face, especially around the mouth and the sides of the nose; the condition progresses from edema, through the formation of papules and vesicles, to ultimate desquamation. Inhalation of high concentrations of dust has caused unconsciousness, weakness, muscle pain, and kidney problems. Swallowing picric acid may cause a bitter taste, headache, dizziness, nausea, vomiting, and diarrhea. High doses may cause destruction of the red blood cells and damage to the kidneys and liver with blood in the urine.

SECTION 12: Ecological information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
This substance/mixture 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 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1344 IMDG: 1344 IATA: 1344
14.2 UN proper shipping name
ADR/RID: TRINITROPHENOL, WETTED
IMDG: TRINITROPHENOL, WETTED
IATA: Trinitrophenol, wetted
14.3 Transport hazard class(es)
ADR/RID: 4.1 IMDG: 4.1 IATA: 4.1
14.4 Packaging group
ADR/RID: I IMDG: I IATA: I
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
Further information
No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H201	Explosive; mass explosion hazard.
H206	Fire, blast or projection hazard; increased risk of explosion if desensitizing agent is reduced.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H311 + H331	Toxic in contact with skin or if inhaled.
H331	Toxic if inhaled.

National Fire Protection Association (U.S.A.):
Health: 3
Flammability: 4
Reactivity: 4

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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