SAFETY DATA SHEET

Creation Date 22-Oct-2014 **Revision Date** 14-Dec-2023 **Revision Number** 4

1. Identification

Product Name **Picric acid, wetted with at least 30% water, by mass**

Cat No. : **C6114**

Synonyms 2,4,6-Trinitrophenol; Picronitric acid; Trinitrophenol

Recommended Use Laboratory chemicals.
Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Lab Alley LLC
22111 Highway 71 West, Suite 601
Spicewood, Texas 78669
512-668-9918

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Explosives	Division 1.1
Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 3
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Liver, Kidney, Blood.	

Label Elements

Signal Word
Danger

Hazard Statements
Explosive; mass explosion hazard
Toxic if swallowed
Toxic in contact with skin
Toxic if inhaled
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep wetted with water
Ground/bond container and receiving equipment
Do not subject to grinding/shock/friction
Response
Get medical attention/advice if you feel unwell
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician
Skin
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor/physician if you feel unwell
Remove/Take off immediately all contaminated clothing
Wash contaminated clothing before reuse
Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Fire
In case of fire: Evacuate area
Explosion risk in case of fire
DO NOT fight fire when fire reaches explosives
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in accordance with local regulations
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Picric acid	88-89-1	< 70
Water	7732-18-5	> 30

4. First-aid measures

General Advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact Immediate medical attention is required. Rinse immediately with plenty of water, also under

	the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Move to fresh air. Call a physician or Poison Control Center immediately.
Ingestion	Call a physician immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media No information available

Flash Point 150 °C / 302 °F

Method - No information available

Autoignition Temperature 300 °C / 572 °F

Explosion Limits

Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
The product causes burns of eyes, skin and mucous membranes.

Hazardous Combustion Products
Thermal decomposition can lead to release of irritating gases and vapors
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
3	4	4	N/A

6. Accidental release measures

Personal Precautions Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Refer to protective measures listed in Sections 7 and 8

Environmental Precautions Do not allow material to contaminate ground water system. Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up No information available.

7. Handling and storage

Handling Ensure adequate ventilation.

Storage Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Picric acid	TWA: 0.1 mg/m³	(Vacated) TWA: 0.1 mg/m³ Skin TWA: 0.1 mg/m³	IDLH: 75 mg/m³ TWA: 0.1 mg/m³ STEL: 0.3 mg/m³	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Tightly fitting safety goggles.

Skin and body protection impervious clothing. Impervious gloves. Boots. Long sleeved clothing. Apron.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

9. Physical and chemical properties

Physical State	Slurry Liquid
Appearance	Yellow
Odor	Odorless
Odor Threshold	No information available
pH	1.3 (1.4 %)
Melting Point/Range	121.8 °C / 251.2 °F
Boiling Point/Range	Not applicable
Flash Point	150 °C / 302 °F
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	negligible
Vapor Density	No information available
Specific Gravity	1.767
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	300 °C / 572 °F
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C6H2(NO2)3OH
Molecular Weight	229.0369

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability This material poses an explosion hazard when dry. Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers. Risk of explosion. Explosive properties. Explosive. Unstable if heated.

Conditions to Avoid To avoid thermal decomposition, do not overheat. Keep away from open flames, hot surfaces and sources of ignition. Do not allow evaporation to dryness. Dry residue is explosive.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions Thermal decomposition. Heating may cause an explosion. Hazardous polymerization may occur upon depletion of inhibitor.

11. Toxicological information

Acute Toxicity

Oral LD50 Category 3. ATE = 50 - 300 mg/kg.
Dermal LD50 Category 3. ATE = 200 - 1000 mg/kg.
Vapor LC50 Category 3. ATE = 2 - 10 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Picric acid	LD50 = 200 mg/kg (Rat)	Not listed	Not listed
Water	-	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Picric acid	88-89-1	Not listed	Not listed	Not listed	Not listed	Not listed
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure Liver Kidney Blood

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Harmful to aquatic organisms.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Should not be released into the environment.

14. Transport information

DOT
- **UN-No** UN1344
- **Proper Shipping Name** TRINITROPHENOL, WETTED
- **Hazard Class** 4.1
- **Packing Group** I

TDG
- **UN-No** UN1344
- **Proper Shipping Name** TRINITROPHENOL, WETTED
- **Hazard Class** 4.1
- **Packing Group** I

IATA
- **UN-No** UN1344
- **Proper Shipping Name** TRINITROPHENOL, WETTED
- **Hazard Class** 4.1
- **Packing Group** I

IMDG/IMO
- **UN-No** UN1344
- **Proper Shipping Name** TRINITROPHENOL, WETTED
- **Hazard Class** 4.1
- **Packing Group** I

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Picric acid	X	X	-	201-865-9	-		X	X	X	X	X
Water	X	X	-	231-791-2	-		X	-	X	X	X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Picric acid	88-89-1	< 70	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Picric acid	X	X	X	-	X
Water	-	-	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Picric acid	2000 lb STQ

Other International Regulations

Mexico - Grade Slight risk, Grade 1

16. Other information

Creation Date 22-Oct-2014
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Print Date 14-Dec-2023
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS