

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Lead, standard solution 1000mg/L

Product code (SDS NO): 52205jis_J_E2-1

Relevant identified uses of the substance or mixture and uses advised against

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-cho, Koshigaya-shi, Saitama 343-0844, Japan

Division: Quality Assurance Department

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Acute toxicity (Inhalation): Category 2

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity – single exposure: Category 2(respiratory system)

Specific target organ toxicity – repeated exposure: Category 2(respiratory system, tooth)

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

HAZARD STATEMENT

H330-Fatal if inhaled

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage

H371-May cause damage to organs after single exposure

H373-May cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention

Do not breathe vapors.

In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.)

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

Do not eat, drink or smoke when using this product.

Response

Get medical advice/attention if you feel unwell.

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

Immediately call a POISON CENTER or doctor/physician.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:Lead nitrate

Content (%):0.16

Chemical formula:N2O6Pb

Chemicals No, Japan:1-488

CAS No.:10099-74-8

MW:331.21

ECNO:233-245-9

Ingredient name:Nitric acid

Content (%):5~6

Chemical formula:HNO3

Chemicals No, Japan:1-394

CAS No.:7697-37-2

MW:63.01

ECNO:231-714-2

Ingredient name:Water

Content (%):Residual quantity of the ingredient mentioned above.

Chemical formula:H2O

CAS No.:7732-18-5

MW:18.02

ECNO:231-791-2

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.

Immediately call a POISON CENTER or doctor/physician.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

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

If skin irritation or rash occurs: Get medical advice/attention.

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Cool container with water spray.

Special protective equipment and precautions for fire-fighters

Wear fire/ flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFETY: Ventilate closed spaces before entering.

Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Use clean non-sparking tools to collect absorbed material.

All equipment used when handling the product must be grounded.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and storage

Precautions for safe handling

Preventive measures

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Avoid breathing dust, fume, gas, mist or vapor.

Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Bases, Reducing agents should not be mixed with the chemicals.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

Storage

Conditions for safe storage

Store in a well-ventilated place. Keep container tightly closed.

Keep cool. Protect from sunlight.

Store locked up.

Container and packaging materials for safe handling data is not available.

8. Exposure controls/personal protection

Control parameters

Control value

(Lead nitrate)

Japan control value (2004) $\leq 0.05\text{mg-Pb}/\text{m}^3$

Adopted value

(Lead nitrate)

JSOH(2016) $0.03\text{mg-Pb}/\text{m}^3$

ACGIH(1991) TWA: $0.05\text{mg-Pb}/\text{m}^3$ (CNS & PNS imp; hematologic eff)

(Nitric acid)

JSOH(1982) 2ppm; $5.2\text{mg}/\text{m}^3$

ACGIH(1992) TWA: 2ppm;

STEL: 4ppm (URT & eye irr; dental erosion)

OSHA-PEL

(Nitric acid)

TWA: 2ppm, $5\text{mg}/\text{m}^3$

NIOSH-REL

(Lead nitrate)

TWA: $0.05\text{mg-Pb}/\text{m}^3$; See Appendix C

(Nitric acid)

TWA: 2ppm; STEL: 4ppm

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor data is not available.

Odor threshold data is not available.

pH: pH \leq 2(Strong acidic)

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Evaporation rate data is not available.

Melting point/Freezing point data is not available.

Decomposition temperature data is not available.

Self-Accelerating Decomposition Temperature/SADT data is not available.

Flammability (gases, liquids and solids): None

Flash point data is not available.

Auto-ignition temperature data is not available.

Critical temperature data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure data is not available.

Vapor density data is not available.

VOC data is not available.

Relative vapor density (Air=1) data is not available.

Relative density of the Vapor/air – mixture at 20°C (Air = 1) data is not available.

Density and/or relative density data is not available.

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility

Solubility in water: Miscible

Solubility in solvent data is not available.

n-Octanol/water partition coefficient data is not available.

No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions data is not available.

Conditions to avoid

Contact with incompatible materials.

Heat.

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

Incompatible materials
Bases, Reducing agents
Hazardous decomposition products
Nitrogen oxides, Lead oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

(Nitric acid) vapor: rat LC50=49ppm/4hr (JSOH, 1982)

Labor standard law, Japan; Toxic

Nitric acid; Lead nitrate

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

(Lead nitrate) human : skin irritation (ICSC(J), 1999)

(Nitric acid) human : severe damage (ACGIH 7th, 2001)

Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Lead nitrate) human : eyes irritation (ICSC(J), 1999)

(Nitric acid) human : non recoverable corneal opacity to blindness (ACGIH 7th, 2001)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

[GHS Cat. Japan, base data]

(Lead nitrate)

cat.2; IARC 2B (IARC, 1987 et al.)

IARC-Gr.2A : Probably carcinogenic to humans

ACGIH-A3(1991) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

JSOH-2B: Insufficient Evidence of Carcinogenicity for Humans

Reproductive toxicity

[GHS Cat. Japan, base data]

(Lead nitrate)

cat. 1A; developmental neurotoxic and reproductive toxic potentials (lead)

STOT

STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

(Nitric acid) respiratory apparatus (SIDS, 2010)

STOT-repeated exposure

[cat.1]

[GHS Cat. Japan, base data]

(Nitric acid) respiratory apparatus; teeth (SIDS, 2010)

Aspiration hazard data is not available.

Additional data

Data on the preparation itself is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Aquatic acute toxicity component(s) data

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

[GHS Cat. Japan, base data]

(Lead nitrate) Crustacea (Gammaridea) LC50=0.124mg/L/96hr (EHC 85, 1989)

(Nitric acid) Fish (Gambusia affinis) LC50=72mg/L/96hr (SIDS, 2010)

Water solubility

(Lead nitrate) 52 g/100 ml (20°C) (ICSC, 1999)

(Nitric acid) miscible (ICSC, 2006)

Persistence and degradability data is not available.

Bioaccumulative potential

(Lead nitrate) BCF=250 (Check & Review, Japan)

(Nitric acid) log Pow=-0.21 (ICSC, 2006)

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Additional data

Data on the preparation itself is not available.

13. Disposal considerations

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No., UN CLASS

UN No.: 2031

Proper Shipping Name : NITRIC ACID, other than red fuming, with 20% or less nitric acid

Class or division : 8

Packing group : II

ERG GUIDE No.: 157

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 2031

Proper Shipping Name : NITRIC ACID, other than red fuming, with 20% or less nitric acid

Class or division : 8

Packing group : II

IATA Dangerous Goods Regulations

UN No.: 2031

Proper Shipping Name : NITRIC ACID, other than red fuming, with 20% or less nitric acid

Class or division : 8

Hazard labels : Corrosive

Packing group : II

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

15. Regulatory Information

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

Environmental hazards

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Noxious Liquid ; Cat. Y

Nitric acid

Non Noxious Liquid ; Cat. OS

Water

Lead, standard solution 1000mg/L,
JUNSEI CHEMICAL CO., LTD.,52205jis_J_E2-1,11/07/2019

US major regulations

TSCA

Water; Nitric acid; Lead nitrate

Other regulatory information

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

16. Other information

GHS classification and labelling

H330-Acute Tox. 2: H330 Fatal if inhaled

H314-Skin Corr. 1: H314 Causes severe skin burns and eye damage

H318-Eye Dam. 1: H318 Causes serious eye damage

H371-STOT SE 2: H371 May cause damage to organs after single exposure

H373-STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (60th Edition) 2019

Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2019 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

Chemicals safety data management system "GHS Assistant" (<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform (NITE-CHRIP)

https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop

GHS Classification Guidance for Enterprises 2013 Revised Edition (Aug. 2013, METI)

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2017).