

Safety Data Sheet

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

Product identifier:

Product name: Lead, powder 200mesh

Reference number(SDS): 52190jis_J_E1-1

Product type:

Reagent

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

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Flammable solids: Category 1

Self-heating substances and mixtures: Category 1

HEALTH HAZARDS

Germ cell mutagenicity: Category 2

Carcinogenicity: Category 2

Reproductive toxicity: Category 1A

Specific target organ toxicity – repeated exposure: Category 1 (hematopoietic system, kidney, central nervous system, peripheral nervous system, cardiovascular system, immune system)

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

Label elements



Signal word: Danger

HAZARD STATEMENT

H228-Flammable solid

H251-Self-heating; may catch fire

H341-Suspected of causing genetic defects

H351-Suspected of causing cancer

H360-May damage fertility or the unborn child

H372-Causes damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep cool.

Ground and bond container and receiving equipment.

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Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/mist.
Wash contaminated parts thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
Do not eat, drink or smoke when using this product.

Response

In case of fire: Use appropriate media other than water to extinguish.
Get medical advice/attention if you feel unwell.
IF exposed or concerned: Get medical advice/attention.

Storage

Store locked up.
Maintain air gap between stacks or pallets.
Store bulk masses greater than specified value at temperatures not exceeding specified values.
Store separately.

Disposal

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

Specific Physical and Chemical hazards

Self-heating material. May catch fire spontaneously.
Flammable solid. Vapor/air mixture may explode.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name: Lead
Content (%): ca. 99
Chemical formula: Pb
CAS No.: 7439-92-1
MW: 207.21
ECNO: 231-100-4

Additives

Non-hazardous surface treatment agent(non-disclosure): ca. 1%

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 advice/attention if you feel unwell.
Keep victim warm and quiet.
Call emergency medical service.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.
Give artificial respiration if victim is not breathing.
Administer oxygen if breathing is difficult.
Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water or shower.
If skin irritation or rash occurs: Get medical advice/attention.
Remove and isolate contaminated clothing and shoes.

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.

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

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Abdominal pain. Headache. Drowsiness. Cough. Metallic taste. Confusion. Unconsciousness. Convulsions.

(Symptoms when skin and/or eye contact)

Conjunctival redness of the eyes

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use dry powder, dry sand to extinguish.

Unsuitable extinguishing media

Water, CO2, Foam

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.

May react violently with water.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame 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.

EVACUATION : Spill: See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Do not touch or walk through spilled material.

Environmental precautions

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

Runoff may create fire or explosion hazard.

Methods and materials for containment and cleaning up

Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

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

Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

Preventive measures for secondary accident

Collect spillage.

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Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Keep out of low areas.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/mist.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Use personal protective equipment as required.

When using do not eat, drink or smoke.

May ignite on contact with moist air or moisture.

Any incompatibilities

Strong acids, Strong oxidizing 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.

Storage

Conditions for safe storage

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

Keep cool. Protect from sunlight.

Store in accordance with local/national regulation.

Store locked up.

Maintain air gap between stacks or pallets.

Store bulk masses greater than specified value at temperatures not exceeding specified values.

Storage temperature upper limit: 30°C

(Incompatible storage condition)

Store separately.

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

Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See

Section 8 for exposure controls and personal protection recommendations.

8. Exposure controls/personal protection

Control parameters

Control value

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

Adopted value

JSOH(2016) 0.03mg-Pb/m^3

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ACGIH(1995) TWA: 0.05mg-Pb/m³ (CNS & PNS imp; hematologic eff)

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

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 safety glasses with side-shields.

Wear eye/face protection.

Skin and body protection

Wear impervious clothing and boots in case of repeated or prolonged treatment.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Powder

Color: Blue silvery-white ~ Grey

Odor: None

Odor threshold data is not available.

Melting point/Freezing point: 327.5°C

Boiling point or initial boiling point: 1740°C

Boiling range data is not available.

Flammability (gases, liquids and solids): Ignitable

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

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

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

pH data is not available.

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Insoluble (Soluble in dilute nitric acid.)

Solubility in solvent: Slightly soluble in alcohol.

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

Vapor pressure data is not available.

Vapor density data is not available.

VOC data is not available.

Evaporation rate data is not available.

Density and/or relative density: 11.3g/cm³(20°C)

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.

Critical temperature data is not available.

Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Runaway polymerization will not occur.

Chemical stability

Stable under normal storage/handling conditions.

Under High temperature and humidity conditions (temperature: $\geq 30^{\circ}\text{C}$, humidity: $\geq 80\%$), this product may self-heat and ignite.

Possibility of hazardous reactions

Upon heating, toxic fumes are formed.

Reacts with strong oxidants and strong acids. This generates toxic, fire and explosion hazard.

Conditions to avoid

Contact with incompatible materials.

Heat.

Incompatible materials

Strong acids, Strong oxidizing agents

Hazardous decomposition products

Lead oxides.

11. Toxicological Information

Information on toxicological effects

Acute toxicity data is not available.

Labor standard law, Japan; Toxic

Lead

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Germ cell mutagenicity

[GHS Cat. Japan, base data]

cat. 2; DFGOTvol.17, 2002

Carcinogenicity

[GHS Cat. Japan, base data]

cat.2; IARC Gr. 2B (IARC Suppl. 7, 1987 et al.)

IARC-Gr.2B : Possibly carcinogenic to humans

ACGIH-A3(1995) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

EPA-Group B2; Probable Human Carcinogen(1986)

NTP-Reasonably Anticipated To Be Human Carcinogen

JSOH-2B: Insufficient Evidence of Carcinogenicity for Humans

Reproductive toxicity

[GHS Cat. Japan, base data]

cat. 1A; DFGOTvol.17, 2002

STOT

STOT-single exposure data is not available.

STOT-repeated exposure

[cat.1]

[GHS Cat. Japan, base data]

hematopoietic system; kidney; central nervous system; peripheral nervous system; cardiovascular system; immune system (DFGOTvol.17, 2002)

Aspiration hazard data is not available.

12. Ecological Information**Ecotoxicity**

Ecotoxicity data is not available.

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

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

14. Transport Information**UN No., UN CLASS**

UN No. or ID No.: 3189

UN Proper Shipping Name : METAL POWER, SELF-HEATING, N.O.S.

Class or division (Transport hazard class) : 4.2

Packing group : II

ERG GUIDE No.: 135

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3189

Proper Shipping Name : METAL POWER, SELF-HEATING, N.O.S.

Class or division : 4.2

Packing group : II

IATA Dangerous Goods Regulations

UN No.: 3189

Proper Shipping Name : METAL POWER, SELF-HEATING, N.O.S.

Class or division : 4.2

Hazard labels : Spont. comb.

Packing group : II

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

MARPOL Annex V – Prevention of pollution by garbage discharge

Reproductive toxicity: cat.1, 1A, 1B

Lead

Specific target organ toxicity – repeated exposure: cat.1

Lead

Maritime transport in bulk according to IMO instruments

Not applicable to Maritime transport in bulk according to IMO instruments

15. Regulatory Information

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

Chemicals listed in TSCA Inventory

Lead

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).

Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

16. Other information

GHS classification and labelling

H228-Flam. Sol. 1: H228 Flammable solid

H251-Self-heat. 1: H251 Self-heating; may catch fire

H341-Muta. 2: H341 Suspected of causing genetic defects

H351-Carc. 2: H351 Suspected of causing cancer

H360-Repr. 1A: H360 May damage fertility or the unborn child

H372-STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2021 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2020 Recommendation on TLVs (JSOH)

Supplier's data/information

Chemicals safety data management system "GHS Assistant" Version 4.11 (<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 2019 Revised Edition (Ver. 2.0) (Mar. 2020, METI)

Definitions and Abbreviations

SDS (Safety Data Sheet)

LD50 (Lethal Dose, 50%)

LC50 (Lethal Concentration, 50%)

IARC (International Agency for Research on Cancer)

ACGIH (American Conference of Governmental Industrial Hygienists)

EPA (US Environmental Protection Agency)

NTP (US National Toxicology Program)

JSOH (Japan Society for Occupational Health)

EU (European Union)

EC50 (Effective Concentration, 50%)

NOEC (No Observed Effect Concentration)

BOD (Biochemical Oxygen Demand)

COD (Chemical Oxygen Demand)

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BCF (Bioconcentration Factor)

anh (anhydride)

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 2019).

But the data are partially changed based on our judgement.