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Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name	Lead powder
Product number	A60730
Brand	3ASenrise
CAS number	7439-92-1

1.2 Details of the supplier of the safety data sheet

Company: Anhui Senrise Technology Co., Ltd.
Address: No.88 Weisan Road, High-Tech Industrial Development Zone, Anqing, Anhui
Post code: 246003
Tel: 400-005-6266
Fax: 0556-5555368
Email: service@3asenrise.com

1.3 Emergency telephone

Emergency telephone: 0556-5500208

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

Identified uses: For R&D use only. Not for pharmaceutical, household or other uses.

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Reproductive toxicity (Category 1A), H360
Effects on or via lactation, H362
Specific target organ toxicity – repeated exposure, Oral (Category 1), Central nervous system, Blood, Immune system, Kidney, H372
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 1), H410

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word: Danger

Hazard statement(s)

H410 Very toxic to aquatic life with long lasting effects.
H360 May damage fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.

H362 May cause harm to breast-fed children.

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P263 Avoid contact during pregnancy/while nursing.

Response

P391 Collect spillage. Hazardous to the aquatic environment

P308+P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Physical and chemical hazards

No data available

2.4 Health hazards

H360 May damage fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H362 May cause harm to breast-fed children.

2.5 Environmental hazards Code

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

2.6 Other hazards

No data available

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Substance

3.1 Substance

Name	Lead powder
Formula	Pb
Molecular Weight	207.22
CAS	7439-92-1
Concentration	99.99% (metals basis)

4 FIRST AID MEASURES

4.1 Description of first aid measures

General advice

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

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with

water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known. Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

6.4 Reference to other section

For disposal see section 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Long term storage: RT

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No data available.

8.2 Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

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.

Body protection

Flame retardant antistatic protective clothing.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Grey to dark grey (crystalline) powder
b) Odor	No data available
c) pH	No data available
d) Melting point/freezing point	327.4 ° C – lit.
e) Initial boiling point and boiling range	1,740 ° C – lit.
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Vapor pressure	No data available
j) Vapor density	No data available
k) Density	11.45 g/cm ³ at 23.8 ° C at 1013 hPa
l) Water solubility	0.185 g/l at 20 ° C at 1.013 hPa– partly soluble
m) Partition coefficient: n-octanol/water	No data available
n) Autoignition temperature	No data available
o) Decomposition temperature	No data available
p) Flammability	No data available

10 STABILITY AND REACTIVITY

10.1 Chemical stability

No data available.

10.2 Conditions to avoid

No data available.

10.3 Incompatible materials

No data available

10.4 Hazardous decomposition products

In the event of fire: see section 5.

11 TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

LD50 Oral

– Rat – male and female – > 2,000 mg/kg

LC50 Inhalation

– Rat – male and female – 4 h – > 5.05 mg/l – dust/mist

LD50 Dermal

– Rat – male and female – > 2,000 mg/kg

11.2 Skin corrosion/irritation

Skin – Rabbit Result: No skin irritation – 4 h

11.3 Serious eye damage/eye irritation

Eyes – Rabbit Result: No eye irritation – 72 h

11.4 Respiratory or skin sensitization

Maximization Test – Guinea pig Result: negative

11.5 Germ cell mutagenicity

Test Type: Micronucleus test Species: Rat Cell type: Red blood cells (erythrocytes)

Application Route: Oral Result: positive Test Type: comet assay Species: Mouse Cell type:

Liver cells Application Route: Inhalation Result: negative Test Type: Micronucleu

11.6 Carcinogenicity

No data available

11.7 Reproductive toxicity

May damage the unborn child. Positive evidence from human epidemiological studies. May damage fertility. Positive evidence from human epidemiological studies. Studies indicating a hazard to babies during the lactation period

11.8 Specific target organ toxicity - single exposure

No data available

11.9 Specific target organ toxicity - repeated exposure

Oral – Causes damage to organs through prolonged or repeated exposure. – Central nervous system, Blood, Immune system, Kidney

11.10 Aspiration hazard

no data available.

11.11 Additional Information

RTECS: 0F7525000 anemia To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. On the basis of the morphology of the product, no hazardous properties are to be expected when it is handled and used with appropriate care. The following applies to lead compounds in general: Due to the poor absorbability via the gastrointestinal tract, only very high doses lead to acute cases of intoxication. After a latency period of several hours, metallic taste, nausea, vomiting, and colics occur, in many instances followed by shock. Chronic uptake causes peripheral muscular weakness ("drop-wrist"), anaemia, and central-nervous disorders. Women of child-bearing age should not be exposed to the substance over longer periods of time (observe critical threshold). Handle in accordance with good industrial hygiene and safety practice.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish:

static test LC50 – Oncorhynchus mykiss (rainbow trout) – 0.1 mg/l – 96 h

Toxicity to daphnia and other aquatic:

No data available

Toxicity to algae:

mortality EC50 – Skeletonema costatum – 7.94 mg/l – 10 d (Lead)

Toxicity to bacteria:

No data available

12.2 Persistence and degradability

Biodegradability Result: – According to the results of tests of biodegradability this product is not readily biodegradable. Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Bioaccumulation Oncorhynchus kisutch - 2 Weeks - 150 µg/l (Lead) Bioconcentration factor (BCF): 12

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Discharge into the environment must be avoided.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Disposal must be made according to official regulations.

14 TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

14.2 UN proper shipping name

ADR/RID: LEAD POWDER

IMDG: LEAD POWDER

IATA-DGR: Lead powder

14.3 Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

14.6 Special precautions for user

No data available

15. REGULATORY INFORMATION

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

Applicable regulations

Please pay attention to waste disposal and meet the requirements of local regulations.

16. OTHER INFORMATION

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Further information

The above safety technical information is for reference only, because many physical and chemical properties are not entirely clear. Please consult information carefully before use and use after confirmation.

Anhui Senrise Technology Co., Ltd. shall not be held liable for any damage resulting

from handling or from contact with the above product. More terms of use, see invoice information for details.

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