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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	m-Xylylene diisocyanate
Product number	W830269
Brand	3ASenrise
CAS number	3634-83-1

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

Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 5), H303
Acute toxicity, Inhalation (Category 2), H330
Skin corrosion/irritation (Category 2), H315
Serious eye damage/eye irritation (Category 1), H318
Respiratory sensitization (Category 1), H334
Skin sensitization (Sub-category 1A), H317
Specific target organ toxicity - single exposure, Inhalation (Category 1), Respiratory Tract, H370
Specific target organ toxicity - repeated exposure, Inhalation (Category 1), Respiratory Tract, H372
Short-term (acute) aquatic hazard (Category 3), H402
Long-term (chronic) aquatic hazard (Category 3), H412

2.2 GHS label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)

H315 Causes skin irritation.
H318 Causes serious eye damage.
H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
H303 May be harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P270 Do not eat, drink or smoke when using this product.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P284 Wear respiratory protection.
P271 Use only outdoors or in a well-ventilated area.

Response

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P308+P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

Storage

P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

Disposal

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

2.3 Physical and chemical hazards

H226 Flammable liquid and vapour.

2.4 Health hazards

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H370 Causes damage to organs.

H372 Causes damage to organs through prolonged or repeated exposure.

H303 May be harmful if swallowed.

2.5 Environmental hazards Code

H402 Harmful to aquatic life.

H412 Harmful 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	m-Xylylene diisocyanate
Formula	C10H8N2O2
Molecular Weight	188.18
CAS	3634-83-1
Concentration	98%

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

Carbon oxides Nitrogen oxides (NOx) Hydrogen cyanide (hydrocyanic acid) Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. 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: 2-8° C

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	Colorless liquid
b) Odor	No data available
c) pH	No data available
d) Melting point/freezing point	-7 ° C
e) Initial boiling point and boiling range	88 - 90 ° C at 0.03 hPa
f) Upper/lower flammability or explosive limits	No data available
g) Flash point	42 ° C - closed cup
h) Evaporation rate	No data available
i) Vapor pressure	< 0.1 hPa at 20 ° C
j) Vapor density	No data available
k) Density	1.202 g/mL at 20 ° C
l) Water solubility	No data available
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

Amines, Alcohols, Strong oxidizing agents

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 - 3,200 mg/kg

LC50 Inhalation

No data available

LD50 Dermal

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

11.2 Skin corrosion/irritation

Skin - Rabbit Result: Irritating to skin. - 4 h

11.3 Serious eye damage/eye irritation

Eyes - Rabbit Result: Causes serious eye damage.

11.4 Respiratory or skin sensitization

Maximization Test - Guinea pig Result: positive May cause allergic respiratory and skin reactions

11.5 Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: positive Test Type: Ames test Test system: Esche

11.6 Carcinogenicity

No data available

11.7 Reproductive toxicity

No data available

11.8 Specific target organ toxicity - single exposure

Inhalation - Causes damage to organs. - Respiratory Tract

11.9 Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure. - Respiratory Tract

11.10 Aspiration hazard

no data available.

11.11 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 50 mg/kg RTECS: NR0147000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish:
semi-static test LC50 - Oryzias latipes (Japanese medaka) - 87.6 mg/l - 96 h
Toxicity to daphnia and other aquatic:
No data available
Toxicity to algae:
static test ErC50 - Pseudokirchneriella subcapitata - 31.5 mg/l - 72 h
Toxicity to bacteria:
No data available

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available

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: 2920 IMDG: 2920 IATA: 2920

14.2 UN proper shipping name

ADR/RID: M-XYLYLENE DIISOCYANATE

IMDG: M-XYLYLENE DIISOCYANATE

IATA-DGR: m-Xylylene diisocyanate

14.3 Transport hazard class(es)

ADR/RID: 8(3) IMDG: 8(3) IATA: 8(3)

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

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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