

SAFETY DATA SHEET

Issue Date 01-Dec-2025
Revision Number 3.1

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

Product identifier

Product Name Sodium Bis(2-methoxyethoxy)aluminium Hydride, Toluene Solution (about 70%)
Other means of identification
Product Code(s) 194-08012, 198-08015

Recommended use of the chemical and restrictions on use

Recommended Use For research use only.
Uses advised against Seek expert judgment when using for purposes other than those recommended.

Details of the supplier of the safety data sheet**Manufacturer Address**

FUJIFILM Wako Pure Chemical Corporation
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 Chuo-ku Osaka 540-8605, Japan
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2. HAZARDS IDENTIFICATION

GHS classification**Classification of the substance or mixture****Flammable liquids**

Category 2

Substances and mixtures which, in contact with water, emit flammable gases

Category 1

Aspiration hazard

Category 1

Aspiration hazard -(H304)

Acute toxicity - Inhalation (Vapors)

Category 4

Skin corrosion/irritation

Category 1

Serious eye damage/eye irritation

Category 1

Reproductive Toxicity

Category 1A

Specific target organ toxicity (single exposure)

Category 1, Category 3

Category 1 central nervous system

Category 3 Respiratory irritation, Narcotic effects

Specific target organ toxicity (repeated exposure)

Category 1

Category 1 central nervous system, kidneys

Acute aquatic toxicity

Category 2

Pictograms**Signal word**

Danger

Hazard statements

H225 - Highly flammable liquid and vapor

H260 - In contact with water releases flammable gases which may ignite spontaneously

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H360 - May damage fertility or the unborn child
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H304 - May be fatal if swallowed and enters airways
 H401 - Toxic to aquatic life
 H370 - Causes damage to the following organs: central nervous system
 H372 - Causes damage to the following organs through prolonged or repeated exposure: central nervous system, kidneys

Precautionary statements-(Prevention)

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Avoid release to the environment Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical/ ventilating / lighting / equipment Use only non-sparking tools Take precautionary measures against static discharge Keep away from any possible contact with water, because of violent reaction and possible flash fire Handle under inert gas. Protect from moisture Keep cool

Precautionary statements-(Response)

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 or doctor/physician
 Wash contaminated clothing before reuse IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Rinse mouth Do NOT induce vomiting
 In case of fire: Use suitable extinguishing media for extinction

Precautionary statements-(Storage)

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

Precautionary statements-(Disposal)

Dispose of contents/container to an approved waste disposal plant

Others

Other hazards Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Mixture

Chemical Name	Molecular weight	CAS RN	Weight-%
Sodium Bis(2-methoxyethoxy)aluminum hydride	200.14	22722-98-1	65.0 - 80.0
Toluene	92.14	108-88-3	20.0 - 35.0

Impurities and/or Additives: Not applicable

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing media

Extinguishing powder. DRY sand.

Unsuitable Extinguishing media Do not use straight streams.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air.

Explosion data

Sensitivity to Mechanical none.

Impact

Sensitivity to Static Discharge none.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods and material for containment and cleaning up Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use with local exhaust ventilation. Could form a flammable gas by contact with water and moisture.

Protective measures Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage conditions Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Packed with an inert gas.

Packaging materials Glass.

Incompatible materials Strong oxidizing agents. Water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits

Not applicable

Chemical Name	ACGIH	OSHA PEL	NIOSH IDLH
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m ³ Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³

Personal protective equipment

Respiratory protection gas mask for organic gas (JIS T 8152)
Hand protection chemical protective gloves (JIS T 8116)
Eye protection protective eyeglasses or chemical safety goggles (JIS T 8147)
Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Color Colorless - slightly yellow
Turbidity clear ~ slightly muddy
Appearance liquid

Odor

characteristic odor

pH

no data available

Melting point/freezing point

no data available

Boiling point, initial boiling point and boiling range

no data available

Flash point

4 °C

Evaporation rate:

no data available

Flammability (solid, gas):

no data available

Upper/lower flammability or explosive limits

Upper:

no data available

Lower:

no data available

Vapour pressure

no data available

Vapour density

no data available

Specific Gravity / Relative density

1.036

Solubilities

water : decomposes. Ethanol , ether : miscible .

n-Octanol/water partition coefficient:(log Pow)

no data available

Auto-ignition temperature:

no data available

Decomposition temperature:

no data available

Viscosity (coefficient of viscosity)

no data available

Dynamic viscosity

no data available

Particle characteristics

no data available

10. STABILITY AND REACTIVITY

Stability

Chemical stabilityMay be altered by light.
no data available**Reactivity****Hazardous reactions**

Reacts violently with water

Conditions to avoid

Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark, Moisture

Incompatible materials

Strong oxidizing agents, Water

Hazardous decomposition productsCarbon monoxide (CO), Carbon dioxide (CO₂), Metal oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Toluene	5000 mg/kg (Rat)	12000 mg/kg (Rat)	7460 ppm (Rat) 4 h (vapor)

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Toluene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
Toluene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information
Toluene	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Toluene	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Toluene	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
Toluene	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Toluene	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH
Toluene 108-88-3	N/A	Group 3	N/A	N/A

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Toluene	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Toluene	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Toluene	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
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Toluene	Based on the NITE GHS classification results.
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12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Toluene 108-88-3	EC50 : Pseudokirchneriella subcapitata 433 mg/L 96 h	LC50 : Pimephales promelas 15.22 - 19.05 mg/L 96 h	N/A	EC50 : Ceriodaphnia dubia 3.78 mg/L 48 h

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility

no data available

Chemical Name	Partition coefficient
Toluene 108-88-3	2.73

Mobility in soil

No information available

Other Data

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary including method of disposing contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT

UN/ID No	UN1409
Proper shipping name:	Metal hydrides, water-reactive, n.o.s. (Sodium Bis(2-methoxyethoxy)aluminium Hydride Toluene Solution)
UN classification	4.3
Subsidiary hazard class	
Packing group	II
Marine pollutant	Not applicable

IATA

UN/ID No	UN1409
Proper shipping name:	Metal hydrides, water-reactive, n.o.s. (Sodium Bis(2-methoxyethoxy)aluminium Hydride Toluene Solution)
UN classification	4.3
Subsidiary hazard class	
Packing group	II
Environmentally Hazardous Substance	Not applicable

IMDG

UN/ID No	UN1409
Proper shipping name:	Metal hydrides, water-reactive, n.o.s. (Sodium Bis(2-methoxyethoxy)aluminium Hydride Toluene Solution)
UN classification	4.3
Subsidiary hazard class	
Packing group	II
Marine pollutant (Sea)	Not applicable

15. REGULATORY INFORMATION**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS RN	Weight-%	SARA 313 - Threshold Values %
Sodium Bis(2-methoxyethoxy)aluminum hydride - 22722-98-1	22722-98-1	65.0 - 80.0	N/A
Toluene - 108-88-3	108-88-3	20.0 - 35.0	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Toluene 108-88-3	1000 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Toluene 108-88-3	1000 lb	N/A	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any chemicals regulated by Proposition 65

Chemical Name	California Proposition 65
Toluene - 108-88-3	Developmental

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Toluene 108-88-3	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

Issue Date 01-Dec-2025

Revision Note

No information available

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 Safety Data Sheet