

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

Creation Date 04-May-2010

Revision Date 22-Sep-2023

**Revision Number** 8

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE **COMPANY/UNDERTAKING**

1.1. Product identifier	
Product Description: Cat No. : Synonyms Molecular Formula	Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M) 187900000; 187900010; 187900500; 187902500 Sodium dihydro-bis-(2-methoxyethoxy)aluminate in toluene C6 H16 AI Na O4
Unique Formula Identifier (UFI)	5JUA-TX0T-AW0N-EM5E
1.2. Relevant identified uses of the	substance or mixture and uses advised against
Recommended Use Uses advised against	Laboratory chemicals. No Information available
1.3. Details of the supplier of the sa	afety data sheet
Company	UK entity/business name Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom EU entity/business name Thermo Fisher Scientific Janssen Pharmaceuticalaan 3a, 2440 Geel, Belgium
E-mail address	begel.sdsdesk@thermofisher.com
1.4. Emergency telephone number	For information <b>US</b> call: 001-800-227-6701 / <b>Europe</b> call: +32 14 57 52 11 Emergency Number <b>US</b> :001-201-796-7100 / <b>Europe:</b> +32 14 57 52 99 <b>CHEMTREC</b> Tel. No. <b>US</b> :001-800-424-9300 / <b>Europe:</b> 001-703-527-3887
Poison Centre - Emergency information services	Ireland : National Poisons Information Centre (NPIC) - 01 809 2166 (8am-10pm, 7 days a week) Malta : +356 2395 2000 Cyprus : +357 2240 5611

**SECTION 2: HAZARDS IDENTIFICATION** 

#### 2.1. Classification of the substance or mixture

#### CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

#### **Physical hazards**

Flammable liquids

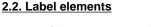
Category 2 (H225)

#### Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

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Substances/mixtures which, in contact with water, emit flammable gases	Category 1 (H260)
Health hazards	
Aspiration Toxicity	Category 1 (H304)
Skin Corrosion/Irritation	Category 1 (H314) B
Serious Eye Damage/Eye Irritation	Category 1 (H318)
Reproductive Toxicity	Category 2 (H361d)
Specific target organ toxicity - (single exposure)	Category 3 (H336)
Specific target organ toxicity - (repeated exposure)	Category 2 (H373)
Environmental hazards	
Chronic aquatic toxicity	Category 3 (H412)

#### Full text of Hazard Statements: see section 16





Signal Word

Danger

#### **Hazard Statements**

H225 - Highly flammable liquid and vapor

- H260 In contact with water releases flammable gases which may ignite spontaneously
- H304 May be fatal if swallowed and enters airways
- H314 Causes severe skin burns and eye damage
- H336 May cause drowsiness or dizziness
- H361d Suspected of damaging the unborn child
- H373 May cause damage to organs through prolonged or repeated exposure
- H412 Harmful to aquatic life with long lasting effects

EUH014 - Reacts violently with water

#### **Precautionary Statements**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower P231 + P232 - Handle and store contents under inert gas. Protect from moisture

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

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

#### 2.3. Other hazards

Reacts violently with water

Toxic to terrestrial vertebrates This product does not contain any known or suspected endocrine disruptors

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Toluene	108-88-3	203-625-9	30	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Repr. 2 (H361d) STOT RE 2 (H373) Aquatic Chronic 3 (H412)
Aluminate(1-), dihydrobis(2-methoxyethanolato-O,O')-, sodium	22722-98-1	EEC No. 245-178-2	70	Skin Corr. 1B (H314) Water-react. 1 (H260) (EUH014)

#### Full text of Hazard Statements: see section 16

### **SECTION 4: FIRST AID MEASURES**

#### 4.1. Description of first aid measures

General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.
Ingestion	Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.
Inhalation	If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
4.2. Most important symptoms and	effects, both acute and delayed
	Causes burns by all exposure routes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive

Causes burns by all exposure routes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

#### 4.3. Indication of any immediate medical attention and special treatment needed

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

Notes to Physician

Treat symptomatically. Symptoms may be delayed.

## SECTION 5: FIREFIGHTING MEASURES

#### 5.1. Extinguishing media

#### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

#### Extinguishing media which must not be used for safety reasons Water.

#### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Reacts violently with water.

#### Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

#### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

#### 6.2. Environmental precautions

Should not be released into the environment.

#### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Do not expose spill to water.

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

#### **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Do not allow contact with water. Handle under an inert atmosphere.

#### **Hvgiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Flammables area. Keep away from heat, sparks and flame. Keep away from water or moist air. Store under an inert atmosphere. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Class 3 Storage Class (LGK) (Germany)

#### 7.3. Specific end use(s)

Use in laboratories

#### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

Component	The United Kingdom	European Union	Ireland
Toluene	STEL: 100 ppm 15 min	TWA: 50 ppm (8hr)	TWA: 192 mg/m <sup>3</sup> 8 hr.
	STEL: 384 mg/m <sup>3</sup> 15 min	TWA: 192 mg/m <sup>3</sup> (8hr)	TWA: 50 ppm 8 hr.
	TWA: 50 ppm 8 hr	STEL: 100 ppm (15min)	STEL: 384 mg/m <sup>3</sup> 15 min
	TWA: 191 mg/m <sup>3</sup> 8 hr	STEL: 384 mg/m <sup>3</sup> (15min)	STEL: 100 ppm 15 min
	Skin	Skin	Skin

#### Biological limit values

List source(s):

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local	Acute effects	Chronic effects local	Chronic effects
	(Oral)	systemic (Oral)	(Oral)	systemic (Oral)
Toluene 108-88-3 ( 30 )				8.13 mg/kg bw/day

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Toluene 108-88-3(30)				DNEL = 384mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)	
Toluene 108-88-3 ( 30 )	DNEL = 384mg/m <sup>3</sup>	DNEL = 384mg/m <sup>3</sup>	DNEL = 192mg/m <sup>3</sup>	DNEL = 192mg/m <sup>3</sup>	

#### Predicted No Effect Concentration (PNEC)

See values below.

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

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Component	Fresh water			Microorganisms in	
		sediment		sewage treatment	
Toluene	PNEC = 0.68mg/L	PNEC =	PNEC = 0.68mg/L	PNEC = 13.61mg/L	PNEC = 2.89mg/kg
108-88-3(30)		16.39mg/kg			soil dw
		sediment dw			

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Toluene	PNEC = 0.68mg/L	PNEC =			
108-88-3 ( 30 )	-	16.39mg/kg			
		sediment dw			

#### 8.2. Exposure controls

#### **Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

Eye Protection	Goggles (European standard - EN 166)
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#### Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Viton (R)	recommendations			
Skin and body pro	tection Wear ap	propriate protective g	gloves and clothing to	prevent skin exposure.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. <b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system.

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

#### 9.1. Information on basic physical and chemical properties

Physical State	Viscous liquid Liquid	
Appearance Odor Odor Threshold Melting Point/Range Softening Point Boiling Point/Range Flammability (liquid) Flammability (solid,gas) Explosion Limits	Colorless, Amber No information available No data available No data available No data available 110 °C / 230 °F Highly flammable Not applicable No data available	760 mmHg On basis of test data Liquid
Flash Point Autoignition Temperature Decomposition Temperature pH Viscosity Water Solubility Solubility in other solvents Partition Coefficient (n-octanol/wat Component Toluene Vapor Pressure	<b>log Pow</b> 2.73 No data available	Method - No information available
Density / Specific Gravity Bulk Density Vapor Density Particle characteristics 9.2. Other information	1.036 Not applicable 6.9 Not applicable (liquid)	Liquid (Air = 1.0)
9.2. Other Information Molecular Formula	C6 H16 Al Na O4	

**Molecular Weight Explosive Properties** 

202.16 Vapors may form explosive mixtures with air

## **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity	Yes
10.2. Chemical stability	Moisture sensitive.
10.3. Possibility of hazardous react	ions
Hazardous Polymerization Hazardous Reactions	Hazardous polymerization does not occur. None under normal processing. Reacts violently with water.
10.4. Conditions to avoid	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moist air or water. Exposure to moisture.
10.5. Incompatible materials	Strong oxidizing agents. Acids. Acid anhydrides. Acid chlorides. Alcohols.

#### 10.6. Hazardous decomposition products

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## **SECTION 11: TOXICOLOGICAL INFORMATION**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Product Information** 

(a) acute toxicity;	
Oral	No data available
Dermal	No data available
Inhalation	No data available

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Toluene	> 5000 mg/kg (Rat)	12000 mg/kg (Rabbit)	26700 ppm (Rat)1 h
Aluminate(1-), dihydrobis(2-methoxyethanolato-O,O')-, sodium	-	LD50 > 400 mg/kg (Rat)	-

(b) skin corrosion/irritation;	No data available
(c) serious eye damage/irritation;	No data available
(d) respiratory or skin sensitization Respiratory Skin	No data available No data available
(e) germ cell mutagenicity;	No data available
(f) carcinogenicity;	No data available
	There are no known carcinogenic chemicals in this product
(g) reproductive toxicity; Reproductive Effects	No data available May cause harm to the unborn child. Possible risk of impaired fertility.
(h) STOT-single exposure;	No data available
Results / Target organs	Central nervous system (CNS).
(i) STOT-repeated exposure;	No data available
Target Organs	Skin, Respiratory system, Eyes, Gastrointestinal tract (GI), Ears, Neuropsychological effects.
(j) aspiration hazard;	Category 1
Other Adverse Effects	The toxicological properties have not been fully investigated.
Symptoms / effects,both acute and delayed	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be

#### Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

#### 11.2. Information on other hazards

Assess endocrine disrupting properties for human health. known or suspected endocrine disruptors.	This product does not contain any

## **SECTION 12: ECOLOGICAL INFORMATION**

#### 12.1. Toxicity Ecotoxicity effects

The product contains following substances which are hazardous for the environment. Contains a substance which is:. Toxic to aquatic organisms. Reacts with water so no ecotoxicity data for the substance is available. Harmful to aquatic organisms. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Toluene	50-70 mg/L LC50 96 h	EC50: = 11.5 mg/L, 48h	EC50: = 12.5 mg/L, 72h static
	5-7 mg/L LC50 96 h		(Pseudokirchneriella subcapitata)
	15-19 mg/L LC50 96 h	EC50: 5.46 - 9.83 mg/L, 48h	EC50: > 433 mg/L, 96h
	28 mg/L LC50 96 h	Static (Daphnia magna)	(Pseudokirchneriella subcapitata)
	12 mg/L LC50 96 h		

Component	Microtox	M-Factor
Toluene	EC50 = 19.7 mg/L 30 min	

#### 12.2. Persistence and degradability No information available

Persistence

Persistence is unlikely, based on information available.

Degradability	Reacts with water.	
	ponent	Degradability
	uene 8-3 ( 30 )	86% (20d)
Degradation in sewage treatment plant	Contains substances known to be water treatment plants. Reacts vi	e hazardous to the environment or not degradable in waste olently with water.
12.3. Bioaccumulative potential	Product does not bioaccumulate	due to reaction with water

Component	log Pow	Bioconcentration factor (BCF)
Toluene	2.73	90

<u>12.4. Mobility in soil</u>	Reacts violently with water . Is not likely mobile in the environment.
<u>12.5. Results of PBT and vPvB</u> assessment	Reacts violently with water.
<u>12.6. Endocrine disrupting</u> properties Endocrine Disruptor Information	This product does not contain any known or suspected endocrine disruptors
<u>12.7. Other adverse effects</u> Persistent Organic Pollutant Ozone Depletion Potential	This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

## **SECTION 13: DISPOSAL CONSIDERATIONS**

#### 13.1. Waste treatment methods

Waste from Residues/Unused Products	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
European Waste Catalogue (EWC)	According to the European Waste Catalog, Waste Codes are not product specific, but application specific.
Other Information	Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Do not let this chemical enter the environment.

## **SECTION 14: TRANSPORT INFORMATION**

#### IMDG/IMO

<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> Subsidiary Hazard Class <u>14.4. Packing group</u>	UN3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE 4.3 3 I
ADR	
<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> Subsidiary Hazard Class <u>14.4. Packing group</u>	UN3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE 4.3 3 I
IATA	
<u>14.1. UN number</u> <u>14.2. UN proper shipping name</u> <u>14.3. Transport hazard class(es)</u> Subsidiary Hazard Class <u>14.4. Packing group</u>	UN3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE 4.3 3 I
14.5. Environmental hazards	No hazards identified
14.6. Special precautions for user	No special precautions required.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

#### Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Toluene	108-88-3	203-625-9	-	-	Х	Х	KE-33936	Х	Х
Aluminate(1-),	22722-98-1	245-178-2	-	-	Х	Х	99-3-1269	Х	Х
dihydrobis(2-methoxyethanolato-O									
,O')-, sodium									

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Toluene	108-88-3	Х	ACTIVE	Х	-	Х	Х	Х
Aluminate(1-), dihydrobis(2-methoxyethanolato-O ,O')-, sodium	22722-98-1	Х	ACTIVE	Х	-	Х	Х	х

Legend: X - Listed '-' - Not Listed KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization		REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Toluene	108-88-3	-	Use restricted. See item 48. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	-
Aluminate(1-), dihydrobis(2-methoxyethanolato-O, O')-, sodium	22722-98-1	-	-	-

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

#### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Toluene	108-88-3	Not applicable	Not applicable
Aluminate(1-), dihydrobis(2-methoxyethanol ato-O,O')-, sodium	22722-98-1	Not applicable	Not applicable

# Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

#### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

#### Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol. in toluene (ca. 3.5M)

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

#### **National Regulations**

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

#### WGK Classification

Water endangering class = 3 (self classification)

[	Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
	Toluene	WGK3	

Component	France - INRS (Tables of occupational diseases)
Toluene	Tableaux des maladies professionnelles (TMP) - RG 4bis,RG 84

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Toluene 108-88-3 ( 30 )	Prohibited and Restricted Substances	Group I	

#### 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

#### **SECTION 16: OTHER INFORMATION**

#### Full text of H-Statements referred to under sections 2 and 3

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

H304 - May be fatal if swallowed and enters airways

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H336 - May cause drowsiness or dizziness

H361d - Suspected of damaging the unborn child

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

H412 - Harmful to aquatic life with long lasting effects

EUH014 - Reacts violently with water

#### Legend

Inventory

Substances List

**CAS** - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit ACGIH - American Conference of Governmental Industrial Hygienists **DNEL** - Derived No Effect Level

TWA - Time Weighted Average IARC - International Agency for Research on Cancer Predicted No Effect Concentration (PNEC)

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b)

RPE - Respiratory Protective Equipment	LD50 - Lethal Dose 50%
LC50 - Lethal Concentration 50%	EC50 - Effective Concentration 50%
NOEC - No Observed Effect Concentration	POW - Partition coefficient Octanol:Water
PBT - Persistent, Bioaccumulative, Toxic	vPvB - very Persistent, very Bioaccumulative
ADR - European Agreement Concerning the International Carriage of	ICAO/IATA - International Civil Aviation Organization/International Air
Dangerous Goods by Road	Transport Association
<b>IMO/IMDG</b> - International Maritime Organization/International Maritime Dangerous Goods Code	MARPOL - International Convention for the Prevention of Pollution fro Ships
<b>OECD</b> - Organisation for Economic Co-operation and Development	ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor	VOC - (Volatile Organic Compound)
Key literature references and sources for data	
https://echa.europa.eu/information-on-chemicals	
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index,	RTECS

#### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: Physical hazards On basis of test data Health Hazards Calculation method Environmental hazards Calculation method

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Sodium bis(2-methoxyethoxy)aluminiumhydride, 70 wt% sol, in toluene (ca. 3.5M)

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts. Chemical incident response training.

Creation Date	04-May-2010
Revision Date	22-Sep-2023
Revision Summary	SDS sections updated.

### This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

#### Disclaimer

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## **End of Safety Data Sheet**

Revision Date 22-Sep-2023