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Grignards

Allylmagnesium Chloride, 1.7 M (18%) Solution in THF

Application	Grignard reaction for introduction of the allyl group		
CAS No.	2622-05-1	EINECS No.	220-067-1
Assay	16 – 20%		
Mol. Formula;	H ₂ =CH-CH ₂ -MgCl	Storage;	Greater than 15 deg. C
Mol. Weight;	100.83	Appearance;	Brown liquid
Density;	0.96	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Benzylmagnesium Chloride, 1.4 M (20%) Solution in THF

Application	Grignard reaction for introduction of the benzyl group		
CAS No.	6921-34-2	EINECS No.	230-039-0
Assay	19 – 21%		
Mol. Formula;	C ₆ H ₅ – CH ₂ – MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	150.89	Appearance;	Dark brown liquid
Density;	1.03	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

n-Butylmagnesium Chloride, 1.7 M (20%) in THF / Toluene

Application;	Grignard reaction for introduction of the butyl group, metalation of CH acidic compounds.		
CAS No.	693-04-9	EINECS No.	211-739-5
Assay;	19 – 21%		
Mol. Formula;	C ₄ H ₉ – MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	116.87	Appearance;	Dark brown liquid
Density;	0.98	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

sec-Butylmagnesium Chloride, 2.1 M (25%) in THF

Application;	Grignard reaction for introduction of the sec-butyl group		
CAS No.	15366-08-2	EINECS No.	239-403-3
Assay;	24-26%		
Mol. Formula;	C ₄ H ₉ – MgCl	Storage;	Greater than 5 deg. C
Mol. Weight;	116.87	Appearance;	Yellowish-brown liquid
Density;	1.0	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

tert-Butylmagnesium Chloride, 1.7 M (20%) in THF

Application;	Grignard reaction for introduction of the t-butyl group, as base for deprotonation reactions		
CAS No.	677-22-5	EINECS No.	211-638-6
Assay;	19 – 21%		
Mol. Formula;	tert-C ₄ H ₉ MgCl	Storage;	Greater than 5 deg. C
Mol. Weight;	116.87	Appearance;	Dark brown liquid
Density;	1.0	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

tert-Butylmagnesium Chloride, 1.7 M (25%) in Diethyl Ether

Application;	Grignard reaction for introduction of the t-butyl group, as base for deprotonation reactions.		
CAS No.	677-22-5	EINECS No.	211-638-6
Assay;	24 – 26%		
Mol. Formula;	tert-C ₄ H ₉ MgCl	Storage;	Greater than -10 deg. C
Mol. Weight;	116.87	Appearance;	Dark brown liquid
Density;	0.80	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Cyclohexylmagnesium Chloride, 1.3 M (20%) Solution in 1:1 THF / Toluene

Application	Grignard reaction for introduction of the cyclohexyl group		
CAS No.	931-51-1	EINECS No.	213-237-1
Assay	19 –21%		
Mol. Formula;	C ₆ H ₁₁ – MgCl	Storage;	Greater than 5 deg. C
Mol. Weight;	142.91	Appearance;	Dark brown liquid
Density;	0.95	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Dibutylmagnesium, 0.7 M (15%) Solution in Hexane

Application	Metalating agent for amines, alcohols, and carboxylic acids. Modifier for anionic polymerization initiation. Reagent for synthesis of Ziegler – Natta catalyst system.		
CAS No.	39881-32-9	EINECS No.	254-671-1
Assay	14.0 – 16.0%		
Mol. Formula;	n-C ₄ H ₉ – Mg – sec-C ₄ H ₉	Storage;	Exclusion of air and humidity
Mol. Weight;	average 144	Appearance;	Clear to pale yellow liquid
Density;	0.69	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isotankcontainer (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Ethylmagnesium Bromide*

* Available solvents include MTBE, THF / Toluene mixtures, Dibutylether, Diethylether and 2-MeTHF

Application;	Grignard reaction for introduction of the ethyl group		
CAS No.	925-90-6	EINECS No.	213-127-3
Assay;	various		
Mol. Formula;	C ₂ H ₅ -MgBr	Storage;	Greater than 10 deg. C
Mol. Weight;	133.27	Appearance;	Typical dark brown liquid
		Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Ethylmagnesium Chloride, 2.8 M (25%) in THF

Application;	Grignard reaction for introduction of the ethyl group		
CAS No.	2386-64-3	EINECS No.	219-206-9
Assay;	24 - 26%		
Mol. Formula;	C ₂ H ₅ – MgCl	Storage;	Greater than 5 deg. C
Mol. Weight;	88.82	Appearance;	Dark brown liquid
Density;	1.00	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Ethynylmagnesium Chloride, 0.5 M (5%) in THF / Toluene

Application;	Grignard reaction for introduction of the ethynyl group		
CAS No.	65032-27-1	EINECS No.	Not registered
Assay;	4 - 6%		
Mol. Formula;	HC≡C-MgCl	Storage;	Greater than 15 deg. C
Mol. Weight;	84.79	Appearance;	Dark brown liquid
Density;	0.96	Hazards;	Highly flammable, irritant
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

4-Fluorophenylmagnesium Bromide, 0.8 M (15%) in THF

Application;	Grignard reaction for introduction of the fluorophenyl group		
CAS No.	352-13-6	EINECS No.	Not registered
Assay;	14 - 16%		
Mol. Formula;	C ₆ H ₄ F-MgBr	Storage;	Greater than 5 deg. C
Mol. Weight;	199.31	Appearance;	Dark brown liquid
Density;	1.01	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Isopropylmagnesium Bromide, 1.2 M (20%) in Diethyl Ether

Application;	Grignard reaction for introduction of the isopropyl group As a base for deprotonation reactions		
CAS No.	920-39-8	EINECS No.	213-056-8
Assay;	19 – 21%		
Mol. Formula;	(CH ₃) ₂ – CH - MgBr	Storage;	Greater than -20 deg. C
Mol. Weight;	147.30	Appearance;	Light brown liquid
Density;	0.86	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Isopropylmagnesium Chloride, 1.9 M (20%) in THF

Application;	Grignard reaction for introduction of the isopropyl group		
CAS No.	1068-55-9	EINECS No.	213-947-1
Assay;	19 – 21%		
Mol. Formula;	(CH ₃) ₂ – CH – MgCl	Storage;	Greater than 20 deg. C
Mol. Weight;	102.85	Appearance;	Yellow brown liquid
Density;	0.98	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Isopropylmagnesium Chloride / LiCl (Turbogrignard), 1.3 M (14%) in THF

Application;	Reagent for halogen / magnesium exchange reactions		
CAS No.	(iso-PropylMgCl) 1068-55-9 (LiCl) 7447-41-8	EINECS No.	(iso-PropylMgCl) 213-947-1 (LiCl) 231-212-3
Assay;	12 - 16% Isopropylmagnesium chloride, ratio LiCl / isopropylmagnesium chloride = 0.9 – 1.1 mol/mol		
Mol. Formula;	C3H7MgCl / LiCl	Storage;	Greater than 10 deg. C
Mol. Weight;	102.85	Appearance;	Yellowish brown liquid
Density;	0.98	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

o-Methoxyphenylmagnesium Bromide, 0.9 M (20%) in THF

Application;	Grignard reaction for introduction of the ortho-methoxyphenyl group		
CAS No.	16750-63-3	EINECS No.	Not registered
Assay;	19 –21%		
Mol. Formula;	CH ₃ O-C ₆ H ₄ -MgBr	Storage;	Greater than 5 deg. C
Mol. Weight;	211.34	Appearance;	Yellowish-brown liquid
Density;	1.00	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

m-Methoxyphenylmagnesium Bromide, 0.9 M (20%) in THF / Toluene

Application;	Grignard reaction for introduction of the meta-methoxyphenyl group		
CAS No.	36282-40-3	EINECS No.	Not registered
Assay;	19 –21%		
Mol. Formula;	CH ₃ O-C ₆ H ₄ -MgBr	Storage;	Greater than 0 deg. C
Mol. Weight;	211.34	Appearance;	Yellowish-brown liquid
Density;	1.00	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

p-Methoxyphenylmagnesium Bromide, 0.9 M (20%) in THF

Application;	Grignard reaction for introduction of the para-methoxyphenyl group		
CAS No.	13139-86-1	EINECS No.	Not registered
Assay;	19 –21%		
Mol. Formula;	CH ₃ O-C ₆ H ₄ -MgBr	Storage;	Greater than 5 deg. C
Mol. Weight;	211.34	Appearance;	Yellowish-brown liquid
Density;	1.00	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Methylmagnesium Bromide, typ. 17 % solution in THF / Toluene (typ. 1.4 M)

Application;	Grignard-reactions: reagent for the introduction of the methyl group		
CAS No.	75-16-1	EINECS No.	200-844-1
Assay;	16 – 18 %, THF 20 %, Toluene 63 %		
Mol. Formula;	CH ₃ MgBr	Storage;	Exclusion of air and humidity
Mol. Weight;	119.24	Appearance;	Dark brown liquid
Density;	1.01 g/ccm (at 20°C)	Hazards;	Flammable liquid, corrosive
Packaging;	100, 250, 500 ml and 1 liter glass bottles, 7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Methylmagnesium Bromide, typ. 35 % solution in 2-Methyl-Tetrahydrofuran (typ. 3.2 M)

Application;	Grignard-reactions: reagent for the introduction of the methyl group		
CAS No.	75-16-1	EINECS No.	200-844-1
Assay;	34 - 36%		
Mol. Formula;	CH ₃ MgBr	Storage;	Exclusion of air and humidity
Mol. Weight;	119.24	Appearance;	Dark brown liquid
Density;	1.10 g/ccm (at 20°C)	Hazards;	Highly flammable liquid, corrosive
Packaging;	100, 250, 500 ml and 1 liter glass bottles, 7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Methylmagnesium Chloride, 3 M (22%) in THF

Application;	Grignard reaction for introduction of the methyl group		
CAS No.	676-58-4	EINECS No.	211-629-7
Assay;	21 - 23%		
Mol. Formula;	CH ₃ – MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	74.79	Appearance;	Dark brown liquid
Density;	1.01	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Neophylmagnesium Chloride, 1 M (20%) in THF

Application;	Grignard reaction for introduction of the neophyl group		
CAS No.	35293-35-7	EINECS No.	252-492-3
Assay;	19 –21%		
Mol. Formula;	(CH ₃) ₂ (Ph)C-CH ₂ -MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	192.97	Appearance;	Dark brown liquid
Density;	0.95	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Phenylmagnesium Bromide, 2.8 M (45%) in Diethyl Ether

Application;	Grignard reaction for introduction of the phenyl group		
CAS No.	100-58-3	EINECS No.	202-867-2
Assay;	44 - 46%		
Mol. Formula;	C ₆ H ₅ – MgBr	Storage;	Greater than 10 deg. C
Mol. Weight;	181.33	Appearance;	Yellowish brown liquid
Density;	1.13	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Phenylmagnesium Chloride, 1.9 M (25%) in THF

Application;	Grignard reaction for introduction of the phenyl group		
CAS No.	100-59-4	EINECS No.	202-868-8
Assay;	24 - 26%		
Mol. Formula;	C ₆ H ₅ – MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	136.86	Appearance;	Yellowish-brown liquid
Density;	1.04	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

o-Tolylmagnesium Chloride, 1.4 M (20%) in THF / Toluene

Application;	Grignard reaction for introduction of the ortho-Tolyl group		
CAS No.	33872-80-9	EINECS No.	251-709-9
Assay;	18–22%		
Mol. Formula;	CH ₃ -C ₆ H ₄ – MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	150.89	Appearance;	Dark brown liquid
Density;	1.03	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

p-Tolylmagnesium Chloride, 1.35 M (21%) in THF

Application;	Grignard reaction for introduction of the para-Tolyl group		
CAS No.	696-61-7	EINECS No.	Not registered
Assay;	20 - 22%		
Mol. Formula;	CH ₃ -C ₆ H ₄ – MgCl	Storage;	Greater than 10 deg. C
Mol. Weight;	150.89	Appearance;	Dark brown liquid
Density;	0.97	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Vinylmagnesium Chloride, 1.9 M (16.5%) in THF

Application;	Grignard reaction for introduction of the vinyl group		
CAS No.	3536-96-7	EINECS No.	222-575-9
Assay;	15.5 – 17.5%		
Mol. Formula;	H ₂ C=CHMgCl	Storage;	Between 10 and 25 deg. C
Mol. Weight;	86.80	Appearance;	Dark brown liquid
Density;	0.98	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Vinylmagnesium Chloride, 1.9 M (16.5%) in THF

Application;	Grignard reaction for introduction of the vinyl group		
CAS No.	3536-96-7	EINECS No.	222-575-9
Assay;	15.5 – 17.5%		
Mol. Formula;	H ₂ C=CHMgCl	Storage;	Between 10 and 25 deg. C
Mol. Weight;	86.80	Appearance;	Dark brown liquid
Density;	0.98	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Alkoxides

Lithium tert-Amoxide, solution in Heptane (typ. 3.1 M)

Application;	Deprotonation reactions in organic synthesis		
CAS No.	53535-81-2	EINECS No.	-
Assay;	39% - 41%		
Mol. Formula;	$C_5H_{11}LiO$	Storage;	Exclusion of air and humidity
Mol. Weight;	94.08	Appearance;	Colourless to slightly yellow solution
Density;	0.74 g/ccm (at 20°C)	Hazards;	Highly flammable, corrosive
Packaging;	500 ml and 1 liter glass bottles, 7.4, 127 or 450 l cylinders, steel drums up to 220 l 50 or 100 kg net in 110 or 220 liter open lid steel drums.		

Lithium tert-Butoxide

Application;	Auxiliary product for organic synthesis		
CAS No.	1907-33-1	EINECS No.	217-611-5
Assay;	98% minimum		
Mol. Formula;	$(CH_3)_3COLi$	Storage;	Exclusion of air and humidity
Mol. Weight;	80.06	Appearance;	Colorless to light tan powder
Bulk Density;	0.5 kg / liter	Hazards;	Highly flammable, corrosive
Packaging;	Polyethylene bags up to 10 kg net in steel drums 50 or 100 kg net in 110 or 220 liter open lid steel drums.		

Lithium tert-Butoxide, (20%) in THF

Application;	Auxiliary product for organic synthesis		
CAS No.	1907-33-1	EINECS No.	217-611-5
Assay;	19 – 21%		
Mol. Formula;	$(CH_3)_3COLi$	Storage;	Exclusion of air and humidity
Mol. Weight;	80.06	Appearance;	Colorless to slight yellow solution
Density;	0.89	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Lithium Methoxide, Powder

Application;	Auxiliary product for organic synthesis		
CAS No.	865-34-9	EINECS No.	212-737-7
Assay;	min. 99%		
Mol. Formula;	LiOCH ₃	Storage;	Exclusion of air and humidity
Mol. Weight;	37.98	Appearance;	White crystalline powder
Bulk Density;	0.34 kg / liter	Hazards;	Highly flammable, corrosive
Packaging;	Polyethylene bags up to 10 kg net. Bulk in 110 liter open lid steel drums		

Lithium Methoxide, (10%) in Methanol

Application;	Auxiliary product for organic synthesis		
CAS No.	865-34-9	EINECS No.	212-737-7
Assay;	9.5 – 10.5% lithium methoxide		
Mol. Formula;	LiOCH ₃	Storage;	Exclusion of air and humidity
Mol. Weight;	37.98	Appearance;	Clear to slight yellow solution
Density;	0.79 g / ml	Hazards;	Highly flammable, Toxic
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Lithium iso-Propoxide, Powder

Application;	Auxiliary product for organic synthesis		
CAS No.	2388-10-5	EINECS No.	Not registered
Assay;	min. 98%		
Mol. Formula;	$\text{LiOCH}(\text{CH}_3)_2$	Storage;	Exclusion of air and humidity
Mol. Weight;	66.03	Appearance;	Colorless to slight tan powder
Bulk Density;	0.6 kg / liter	Hazards;	Highly flammable, corrosive
Packaging;	Polyethylene bags up to 10 kg net in steel drums Bulk in 110 liter open lid steel drums with 50 kg net		

Lithium iso-Propoxide, Solution in Toluene

Application;	Auxiliary product for organic synthesis		
CAS No.	2388-10-5	EINECS No.	Not registered
Assay;	19 –21%		
Mol. Formula;	$\text{LiOCH}(\text{CH}_3)_2$	Storage;	Exclusion of air and humidity
Mol. Weight;	66.03	Appearance;	Clear to slight yellow solution
Density;	0.86	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, steel drums up to 200 l, isocontainers (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Magnesium tert Butoxide

Application;	Selective base for organic synthesis		
CAS No.	32149-57-8	EINECS No.	250-931-3
Assay;	minimum 93%		
Mol. Formula;	$\text{Mg}(\text{O}(\text{CH}_3)_3)_2$	Storage;	Exclusion of air and humidity
Mol. Weight;	170.53	Appearance;	White to light gray powder
Bulk Density;	0.3 kg / liter	Hazards;	Flammable
Packaging;	Polyethylene bags up to 10 kg net packed in 110 or 220 liter steel drums		

Sodium tert-Amoxide

Application;	Auxiliary product for organic synthesis, strong base		
CAS No.	14593-46-5	EINECS No.	238-639-4
Assay;	Min. 98%		
Mol. Formula;	NaOC(CH ₃) ₂ C ₂ H ₅	Storage;	Exclusion of air and humidity
Mol. Weight;	110.13	Appearance;	Light tan powder
Bulk Density;	0.5	Hazards;	Flammable, corrosive
Packaging;	Polyethylene bags up to 10 kg net. Bulk in 110 or 220 liter steel drums with 50 or 100 kg net		

Sodium tert-Amoxide Solution in THF

Application;	Auxiliary product for organic synthesis, strong base		
CAS No.	14593-46-5	EINECS No.	238-639-4
Assay;	29 - 31%		
Mol. Formula;	NaOC(CH ₃) ₂ C ₂ H ₅	Storage;	Exclusion of air and humidity
Mol. Weight;	110.13	Appearance;	Yellow to light brown liquid.
Density;	0.92	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Sodium tert-Amoxide Solution in Toluene

Application;	Auxiliary product for organic synthesis, strong base		
CAS No.	14593-46-5	EINECS No.	238-639-4
Assay;	39 - 41%		
Mol. Formula;	NaOC(CH ₃) ₂ C ₂ H ₅	Storage;	Exclusion of air and humidity
Mol. Weight;	110.13	Appearance;	Yellow to light brown liquid.
Density;	0.88	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

Sodium tert-Butoxide

Application;	Auxiliary product for organic synthesis, strong base		
CAS No.	865-48-5	EINECS No.	212-741-9
Assay;	Min. 99%		
Mol. Formula;	NaOC(CH ₃) ₃	Storage;	Exclusion of air and humidity
Mol. Weight;	96.10	Appearance;	White to light tan crystalline powder
Bulk Density;	0.4	Hazards;	Highly flammable, corrosive
Packaging;	Polyethylene bags up to 10 kg net in steel drums Bulk in 110 or 220 liter open lid steel drums with 50 or 100 kg net		

Sodium tert-Butoxide Solution in THF

Application;	Auxiliary product for organic synthesis, strong base		
CAS No.	865-48-5	EINECS No.	212-741-9
Assay;	24 - 26%		
Mol. Formula;	NaOC(CH ₃) ₃	Storage;	Exclusion of air and humidity
Mol. Weight;	96.10	Appearance;	Yellow to light brown, slightly turbid solution
Density;	0.91	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA only: Steel drums up to 200 liter)		

Sodium tert-Butoxide Solution in MTBE

Application;	Auxiliary product for organic synthesis, strong base		
CAS No.	865-48-5	EINECS No.	212-741-9
Assay;	16.5 –19.5%		
Mol. Formula;	NaOC(CH ₃) ₃	Storage;	Exclusion of air and humidity
Mol. Weight;	96.10	Appearance;	Clear, colorless to slightly tan solution
Density;	0.79	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA only: Steel drums up to 200 liter)		

Hydrides

Lithium Aluminum Hydride, finely crystalline

Application;	Reducing agent for organic chemical and pharmaceutical industry		
CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	min 97% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	37.95	Appearance;	White to light grey powder
Density;	0.9 g/ccm (at 20° C)	Hazards;	Flammable, corrosive
Packaging;	Solvent soluble SecuBags® from 10 to 2000 g in cans, 5 kg SecuBags® in clamping ring drums		

Lithium Aluminum Hydride tablets (abt. 0.6 g)

Application;	Reducing agent for organic chemical and pharmaceutical industry		
CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	min 97% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	37.95	Appearance;	White to light grey tablets
Density;	0.9 g/ccm (at 20° C)	Hazards;	Flammable, corrosive
Packaging;	Solvent soluble SecuBags® from 10 to 2000 g in cans, 5 kg SecuBags® in clamping ring drums		

Lithium Aluminum Hydride Solution (4%) LAH in THF

Application;	Reducing agent for organic chemical and pharmaceutical industry		
CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	3.9 – 4.5% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	37.95	Appearance;	Grey, turbid solution
Density;	0.9 g/ccm (at 20° C)	Hazards;	Flammable liquid, corrosive
Packaging;	40, 125 and 450 liter steel containers		

Lithium Aluminum Hydride Solution (10%) LAH in THF

Application;	Reducing agent for organic chemical and pharmaceutical industry		
CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	9.5 – 10.5% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	37.95	Appearance;	Grey, turbid solution
Density;	0.9 g/ccm (at 20° C)	Hazards;	Flammable liquid, corrosive
Molarity;	Approximately 3.5 Solvent Ratio; 2.4 to 1 w/w THF / Toluene		
Packaging;	40, 125 and 450 liter steel containers		

Lithium Aluminum Hydride Solution (10%) LAH in 2-Methyl-THF

Application;	Reducing agent for organic chemical and pharmaceutical industry		
CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	9.5 – 10.5% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	37.95	Appearance;	Grey, turbid solution
Density;	0.87 g/ccm (at 20° C)	Hazards;	Flammable liquid, corrosive
Packaging;	40, 125 and 450 liter steel containers		

Lithium Aluminum Hydride Solution (15%) LAH in Tetrahydrofuran / Toluene

CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	14.5 – 15.5% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Not to exceed 20 deg. C recommended
Mol. Weight;	37.95	Appearance;	Grey, turbid solution
Density;	0.89	Hazards;	Flammable liquid, corrosive
Molarity;	Approximately 3.5 Solvent Ratio; 2.4 to 1 w/w THF / Toluene		
Packaging;	500ml, 1 liter glass bottles, 5, 40, 125 and 450 liter cylinders		

Lithium Aluminum Hydride Solution (20%) LAH in Diethyl Ether

CAS No.	16853-85-3	EINECS No.	240-877-9
Assay;	18 - 22% LAH		
Mol. Formula;	LiAlH ₄	Storage;	Not to exceed 20 deg. C recommended
Mol. Weight;	37.95	Appearance;	Grey, turbid solution
Density;	0.76	Hazards;	Flammable liquid, corrosive
Molarity;	Approximately 4.0		
Packaging;	500ml, 1 liter glass bottles, 5, 40, 125 and 450 liter cylinders		

Lithium Borohydride (10%) in Tetrahydrofuran

Application;	Selective reduction of esters, carboxylic acids, amides, ketones, and aldehydes in the presence of other functional groups such as nitriles, nitro groups, alkenes, and halides		
CAS No.	16949-15-8	EINECS No.	241-021-7
Assay;	9.5 – 10.5%		
Mol. Formula;	LiBH ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	21.78	Appearance;	Colorless, slightly turbid solution
Density;	0.89	Hazards;	Flammable liquid, corrosive
Packaging;	500ml, 1 liter glass bottles, 5, 40, 125 and 450 liter cylinders		

Lithium Hydride*

* Available grades include powder and sieved.

Application;	Reducing agent, high density hydrogen source.		
CAS No.	7580-67-8	EINECS No.	231-484-3
Assay;	97% min.		
Mol. Formula;	LiH	Storage;	Exclude air and moisture
Mol. Weight;	7.95	Appearance;	White to gray powder
Density;	0.78	Hazards;	Flammable, corrosive Avoid dusting to reduce dust explosion hazard
Packaging;	Polyethylene bags from 10 to 2000 grams in tin cans Up to 5 kg bags in clamping ring drums containing 10 kg maximum Also available in solvent soluble Secu Bags of the same capacity		

Lithium Triethylborohydride (20%) in THF

Application;	Selective reducing agent for organic synthesis		
CAS No.	22560-16-3	EINECS No.	245-076-8
Assay;	19 –21%		
Mol. Formula;	$\text{LiBH}(\text{C}_2\text{H}_5)_3$	Storage;	Exclusion of air and humidity
Mol. Weight;	105.94	Appearance;	Colorless to yellow liquid
Density;	0.89	Hazards;	Flammable liquid, corrosive
Packaging;	500 ml, 1 liter glass bottles, 5, 40, 125 and 450 liter cylinders		

Lithium tri(t-Butoxy) Aluminum Hydride (30%) in THF (LTTBA)

Application;	Selective reducing agent for organic synthesis		
CAS No.	17476-04-9	EINECS No.	241-490-8
Assay;	29 - 31%		
Mol. Formula;	$\text{LiAlH}(\text{OC}(\text{CH}_3)_3)_3$	Storage;	Exclusion of air and humidity
Mol. Weight;	254.28	Appearance;	Clear to slightly turbid solution
Density;	0.90	Hazards;	Flammable liquid, corrosive
Packaging;	500 ml, 1 liter glass bottles, 5, 40, 125 and 450 liter cylinders		

Potassium Borohydride

Application;	Chemoselective reduction of aldehydes, ketones, acid chlorides, and azides.		
CAS No.	13762-51-1	EINECS No.	237-360-5
Assay;	min. 98%		
Mol. Formula;	KBH_4	Storage;	Exclusion of air and humidity
Mol. Weight;	53.94	Appearance;	White powder
Density;	1.17	Hazards;	Flammable, Toxic
Packaging;	25 kg contained in polyethylene lined fiber drum Smaller quantities upon request		

Sodium Borohydride*

*Available grades include Powder and Granular

Application;	Selective reducing agent for Ketones, Acyl Chlorides, Quinones, and others		
CAS No.	16940-66-2	EINECS No.	241-004-4
Assay;	Min. 98%		
Mol. Formula;	NaBH ₄	Storage;	Exclude air and moisture
Mol. Weight;	37.83	Appearance;	White granulate or powder
Density;	1.07	Hazards;	Flammable, Toxic
Packaging;	Polyethylene bags from 10 – 1000 grams in cans; Polyethylene lined clamping ring drums containing 5, 10, 25, or 50 kg		

Sodium Hydride, 60% Dispersion in Mineral Oil

Application;	Very strong base used for condensation reactions. C,N,O – Alkylation, Acylation, synthesis of alcoholates		
CAS No.	7646-69-7	EINECS No.	231-587-3
Assay;	57 – 63%		
Mol. Formula;	NaH	Storage;	Exclusion of air and moisture
Mol. Weight;	24.00	Appearance;	Light grey tacky powder
Bulk Density;	0.60	Hazards;	Highly flammable
Packaging;	Solvent soluble SecuBags from 10 to 2000 g in tin cans Up to 5 kg SecuBags in steel drums containing 50 kg maximum		

Sodium Triacetoxyborohydride (STAB)

Application;	Mild reducing agent for reductive aminations, reduction of heterocycles, and selective reduction of aldehydes in the presence of ketones		
CAS No.	56553-60-7	EINECS No.	212-741-9
Assay;	min. 97%		
Mol. Formula;	Na[HB(CH ₃ CO ₂) ₃]	Storage;	Exclusion of air and humidity
Mol. Weight;	211.94	Appearance;	Colorless, fluffy powder
Bulk Density;	abt. 0.35 g /cm ³	Hazards;	Highly flammable, corrosive
Packaging;	Glass bottles of 1000 ml Other on request		

Amides

Lithium Amide

Application;	Claisen condensation, Aldol condensation, alkylation of nitriles, ketones, and amines		
CAS No.	7782-89-0	EINECS No.	231-968-4
Assay;	97% min.		
Mol. Formula;	LiNH_2	Storage;	Exclusion of air and humidity
Mol. Weight;	22.96	Appearance;	White to grey powder
Density;	1.18	Hazards;	Highly Flammable, corrosive
Melting Point;	380 – 400 deg. C		
Packaging;	Polyethylene bags of 10 kg per drum, smaller bags on request		

Lithium Diisopropylamide Solution in THF / Heptane

Application;	Strong low nucleophilic base for enolisations			
CAS No.	4111-54-0	EINECS No.	223-893-0	
Assay;	typ. weight %;	LDA	24 – 26% or 27 – 29%	Heptane typ. 35%
		THF	typ. 23%	Ethylbenzene typ. 14%
Mol. Formula;	$\text{LiN}(\text{CH}(\text{CH}_3)_2)_2$	Storage;	Less than 15 deg. C	
Mol. Weight;	107.13	Appearance;	Yellow to reddish brown liquid	
Density;	0.79	Hazards;	Flammable liquid, corrosive	
Packaging;	7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers (USA: 200 liter drums / 50, 200, and 400 liter cylinders, tank truck, isocontainers)			

Lithium bis-(Trimethylsilyl) Amide* (LHS, LHMDs)

*Available Solvents include THF, Methylcyclohexane and other solvents / concentrations on request

Application;	Selective low nucleophilic base for enolisations		
CAS No.	4039-32-1	EINECS No.	223-725-6
Mol. Formula;	$\text{LiN}\{\text{Si}(\text{CH}_3)_3\}_2$	Storage;	exclusion of air and humidity
Mol. Weight;	167.33	Hazards;	Flammable liquid, corrosive

Assay: typ. weight %

In Tetrahydrofuran

LHMDs	24 - 26%	THF	typ. 70 - 75%
2-Methyl-butene	0.2 - 6%		

Assay: typ. weight %

In Tetrahydrofuran

LHMDs	19 - 21%	THF	typ. 70 - 77%
Ethylbenzene	4 – 9%		

Packaging; 7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l, isocontainers
(USA: 200 liter drums / 50, 200, and 400 liter cylinders, tank truck, isocontainers)

Magnesium bis (Diisopropyl)Amide, 20% in THF

Application;	Selective base with low nucleophilic characteristics		
CAS No.	23293-23-4	EINECS No.	Not registered
Assay;	typ. 20%		
Mol. Formula;	$\text{Mg}(\text{N}(\text{CH}(\text{CH}_3)_2)_2)_2$	Storage;	Solution is stable at 20 deg. C
Mol. Weight;	224.67	Appearance;	Yellowish solution
Density;	0.88	Hazards;	Flammable liquid, corrosive
Packaging;	500 ml, 1 liter glass bottles, 200 liter drums / 7.4, 27, 127 and 450 liter cylinders		

Tetramethylpiperidinomagnesium Chloride Lithium, 20% in THF / Toluene

Application;	Selective deprotonation of arenes and heteroarenes		
CAS No.	203-726-8	EINECS No.	203-726-8
Assay;	TMPmgCl 18 - 22%		
Mol. Formula;	$\text{C}_9\text{H}_{18}\text{ClMgN} * \text{LiCl}$	Storage;	Recommendet temp. 25 deg. C
Mol. Weight;	TMP-MgCl 200.00; LiCl 42.4	Appearance;	Brown Liquid
Density;	0.97	Hazards;	Highly flammable, corrosive
Packaging;	100, 250, 500 ml and 1 liter glass bottles, up to 200 liter drums / 7.4, 27, 127 and 450 liter cylinders (Cylinders filled to a maximum of 90 %)		

Lithium And Zink Organyles

n-Butyllithium*

* Available solvents include Hexane, Heptane, Cyclohexane, and Toluene

Application;	Alkylating and metalating agent, initiator for anionic solution polymerization		
CAS No.	109-72-8	EINECS No.	203-698-7
Assay;	Various		
Mol. Formula;	$\text{LiCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$	Storage;	Exclusion of air, humidity and heat
Mol. Weight;	64.06	Appearance;	Pale yellow to turbid solutions
Density;	0.65 – 0.76	Hazards;	Pyrophoric liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isotanks of various sizes, railcar (USA only: 50, 200, and 400 liter cylinders, tank truck, isocontainer, railcar)		

sec-Butyllithium (12%) Solution in Cyclohexane

Application;	Alkylating and metalating agent, initiator for anionic solution polymerization		
CAS No.	598-30-1	EINECS No.	209-927-7
Assay;	11.5 – 12.5%		
Mol. Formula;	$\text{LiCH}(\text{CH}_3)\text{CH}_2\text{CH}_3$	Storage;	Exclusion of air, humidity and heat
Mol. Weight;	64.06	Appearance;	Pale yellow to turbid solutions
Density;	0.65 – 0.76	Hazards;	Pyrophoric liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isotanks of various sizes, railcar (USA only: 50, 200, and 400 liter cylinders, tank truck, isocontainer, railcar)		

tert-Butyllithium , 1.7 M (16%) and 1.9 M (18%) in Pentane

Application;	Alkylating and metalating agent		
CAS No.	594-19-4	EINECS No.	209-831-5
Assay;	15 – 17% (1.7 M) 17 – 19% (1.9 M)		
Mol. Formula;	$\text{LiC}(\text{CH}_3)_3$	Storage;	Exclusion of air and humidity
Mol. Weight;	64.06	Appearance;	Clear, yellowish solution
Density;	0.66	Hazards;	Pyrophoric liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders (USA only: 50, 200, and 400 liter cylinders, portable tanks)		

Ethyllithium (8%) in Dibutylether

(Development Product)

Application	Ethylating agent, strong organic base		
CAS No.	811-49-4	EINECS No.	212-370-2
Assay	7 – 9 %		
Mol. Formula;	C ₂ H ₅ Li	Storage;	Refrigeration required
Mol. Weight;	36.00	Appearance;	Yellowish to clear solution
Density;	0.76	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders		

Isobutyllithium (15%) in Heptane

Application;	Alkylating and metalating agent		
CAS No.	920-36-5		
Assay;	14 – 16%		
Mol. Formula;	Li – CH ₂ – CH(CH ₃) ₂	Storage;	Less than 0 deg. C
Mol. Weight;	88.82	Appearance;	Yellowish solution
Density;	0.7	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders (USA only: 200 liter drums / 50, 200, and 400 liter cylinders)		

n-Hexyllithium (26 - 32%) in Hexane

Application;	Alkylating and metalating agent		
CAS No.	21369-64-2	EINECS No.	Not Registered
Assay;	26 – 32%		
Mol. Formula;	LiC ₆ H ₁₃	Storage;	Exclusion of air and humidity
Mol. Weight;	92.11	Appearance;	Clear, yellowish solution
Density;	0.69	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders , (USA only: 50, 200, and 400 liter cylinders, portable tanks, tank truck)		

Methyl lithium with Addition of Lithium Bromide in Diethylether

Application;	Methylating agent, addition of lithium bromide increases selectivity		
CAS No.	917-54-4	EINECS No.	213-026-4
Assay;	7 - 9% active base		
Mol. Formula;	LiCH ₃	Storage;	Recommended 20 deg. C
Mol. Weight;	21.98	Appearance;	Clear to yellowish solution
Density;	0.81	Hazards;	Pyrophoric, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isocontainers of varying sizes		

Methyl lithium Solution in Diethylether

Application;	Alkylating and metalating agent		
CAS No.	917-54-4	EINECS No.	213-026-4
Assay;	4.5 – 5.5%		
Mol. Formula;	LiCH ₃	Storage;	Recommended 20 deg. C
Mol. Weight;	21.98	Appearance;	Clear to yellowish solution
Density;	0.70	Hazards;	Pyrophoric, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isocontainers of varying sizes		

Methyl lithium Solution in Diethoxymethane

Application;	Alkylating and metalating agent. Strong organometallic base		
CAS No.	917-54-4	EINECS No.	213-026-4
Assay;	7 - 9%		
Mol. Formula;	LiCH ₃	Storage;	Recommended -20 deg. C
Mol. Weight;	21.98	Appearance;	Clear to yellowish solution
Density;	0.83	Hazards;	Pyrophoric, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isocontainers of varying sizes		

Methyl lithium in 2-Methyltetrahydrofuran / Cumene

Application;	Alkylating and metalating agent Strong organometallic base.		
CAS No.	917-54-4	EINECS No.	213-026-4
Assay;	2.7 – 3.3%		
Mol. Formula;	CH ₃ Li	Storage;	Exclusion of air and humidity
Mol. Weight;	21.98	Appearance;	Clear to pale yellow solution
Density;	0.87	Hazards;	Highly flammable, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isocontainers of varying sizes (USA only: 200 liter drums / 50, 200, and 400 liter cylinders, tank truck)		

Phenyllithium, 20% in Dibutyl Ether

Application;	Reagent for introduction of the Phenyl group, mild metalating agent		
CAS No.	591-51-5	EINECS No.	209-720-1
Assay;	17-20%		
Mol. Formula;	LiC_6H_5	Storage;	Exclusion of air and humidity
Mol. Weight;	84.05	Appearance;	Dark brown liquid
Density;	0.85	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders, isocontainers of varying sizes (USA only: 50, 200, and 400 liter cylinders, portable tanks)		

Lithium Acetylide Ethylene Diamine Complex

Application;	Synthesis of substituted acetylenes by reaction with organic halides or ketones		
CAS No.	6867-30-7	EINECS No.	229-967-9
Assay;	90% min.		
Mol. Formula;	$\text{Li C}\equiv\text{CH} \cdot \text{H}_2\text{NCH}_2\text{CH}_2\text{NH}_2$	Storage;	Recommended less than 0 deg. C
Mol. Weight;	92.07	Appearance;	Yellow brown crystals
Density;	1.04	Hazards;	Flammable, corrosive
Decomp. Temp;	40 deg. C		
Packaging;	100 gram and 1 kg bottles, 10 kg steel containers with polyethylene liner		

Diethyl Zinc, 15% in Hexane

Application	Addition reaction to aldehydes		
CAS No.	557-20-0	EINECS No.	209-161-3
Assay	Approximately 15%		
Mol. Formula;	$\text{Zn}(\text{C}_2\text{H}_5)_2$	Storage;	Exclusion of air and moisture
Mol. Weight;	123.51	Appearance;	Dark grey liquid
Density;	0.72	Hazards;	Flammable liquid, corrosive
Packaging;	7.4, 27, 127 and 450 liter cylinders		

Salts In Organic Solvents

Lanthanum Chloride Lithium Chloride Complex

Application;	Soluble anhydrous lanthanoid compositions for selective alkylations		
CAS No.	10099-58-8	EINECS No.	233-237-5
Assay;	? %		
Mol. Formula;	LaCl ₃ * 2 LiCl	Storage;	Exclusion of air and humidity
Mol. Weight;	LaCl ₃ 245.26, LiCl 42.39	Appearance;	Pale yellow or colourless liquid
Density;	1.05 g / ccm	Hazards;	Highly flammable, corrosive
Packaging;	100, 250, 500 ml and 1 liter glass bottles, 30 and 200 liter steel drums		

Lithium Bromide, 30 % solution in THF

Application;	Organic synthesis, especially as additive for organometallic transformations		
CAS No.	7550-35-8	EINECS No.	231-439-8
Assay;	29 - 31 %		
Mol. Formula;	LiBr	Storage;	Should be stored above 15 °C
Mol. Weight;	86.85	Appearance;	Colourless to yellowish solution
Density;	1.18	Hazards;	Highly flammable, harmful
Packaging;	100, 250, 500 ml and 1 liter glass bottles, 7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l		

Zinc Chloride, 25% Solution in 2-Methyl-THF

Application;	Organic synthesis. Use avoids handling of the very hygroscopic and dusty ZnCl ₂ powder.		
CAS No.	7646-85-7	EINECS No.	231-592-0
Assay;	23 - 27 %		
Mol. Formula;	ZnCl ₂	Storage;	Exclusion of light and humidity
Mol. Weight;	136.28	Appearance;	Yellow, clear to slightly turbid solution
Density;	1.07	Hazards;	Flammable, corrosive
Packaging;	100, 250, 500 ml and 1 liter glass bottles, 7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l		

Zinc Chloride, typ.10 % Solution in THF

Application;	Organic synthesis. Use avoids handling of the very hygroscopic and dusty ZnCl ₂ powder.		
CAS No.	7646-85-7	EINECS No.	231-592-0
Assay;	about 10 %		
Mol. Formula;	ZnCl ₂	Storage;	Exclusion of light and humidity
Mol. Weight;	136.28	Appearance;	Yellow, clear to slightly turbid solution
Density;	1.07	Hazards;	Highly flammable, corrosive
Packaging;	100, 250, 500 ml and 1 liter glass bottles, 7.4, 27, 127 or 450 l cylinders, steel drums up to 200 l		

Lithium Salts

Lithium Acetate*

*Available grades include technical and pure

Application;	Polymerization catalyst, raw material for pharmaceuticals		
CAS No.	546-89-4	EINECS No.	208-914-3
Assay;	> 99.0%		
Mol. Formula;	CH ₃ COOLi	Spec. Gravity;	1.25
Mol. Weight;	65.99	Appearance;	White, crystalline powder
Bulk Density;	0.6 kg / liter		
Packaging;	Polyethylene bags of 50 kg in fiber drums		

Lithium Benzoate*

*Available grades include technical and pure

Application;	Catalyst in the polymerization of polypropylene. Raw material for pharmaceuticals		
CAS No.	553-54-8	EINECS No.	209-042-6
Assay;	> 99% typical		
Mol. Formula;	C ₆ H ₅ OOLi	Storage;	Exclusion of air and humidity
Mol. Weight;	128.06	Appearance;	White powder
Bulk Density;	0.5 kg / liter		
Packaging;	Polyethylene bags of 50 kg in fiber drums		

Lithium-bis(oxalato)borate

Application;	A proprietary conductive agent for the use in high performance Lithium Batteries, Lithium Ion Batteries and Lithium Polymer Batteries.		
CAS No.	244761-29-3	ELINCS No.	456-990-3
Assay;	98.4% min.		
Mol. Formula;	C ₄ BO ₈ Li	Storage;	Storage for prolonged time requires a tightly closed container
Mol. Weight;	193.79 g/mol	Appearance;	White, free flowing powder
Density;	0.8 - 1,2 g/ccm (at 20°C)	Hazards;	Harmful
Packaging;	Samples in aluminium bottles and/or aluthene bags Steel drums, aluthene bags with PE bags inside		

Lithium Bromide*

*Also available as a 52 – 55% aqueous solution

Application;	Manufacture of pharmaceuticals, swelling agent for proteins		
CAS No.	7550-35-8	EINECS No.	231-439-8
Assay;	99.5 min.%		
Mol. Formula;	LiBr	Storage;	Exclusion of moisture
Mol. Weight;	86.85	Appearance;	White crystalline powder
Bulk Density;	1.8 kg / liter		
Packaging;	50 and 100 kg polyethylene bags in clamping ring drums		

Lithium Carbonate*

* Available grades include technical, high, battery- and pharmaceutical grade

Application;	Raw material for the glass, ceramic, enamel and building products industries Base material for the manufacture of other lithium compounds		
CAS No.	554-13-2	EINECS No.	209-062-5
Mol. Formula;	Li ₂ CO ₃	Storage;	No special precautions
Mol. Weight;	73.89	Appearance;	White crystalline powder
Density;	2.11		
Packaging;	Various		

Lithium Chloride*

* Also available as a 40% aqueous solution

Application;	Fluxes for welding and soldering, raw material for other lithium compounds		
CAS No.	7447-41-8	EINECS No.	231-213-3
Assay;	99.5% min.		
Mol. Formula;	LiCl	Storage;	Exclusion of air and moisture
Mol. Weight;	42.40	Appearance;	White crystalline powder
Density;	2.06		
Packaging;	50 and 100 kg polyethylene bags in clamping ring drums		

Lithium Chromate (36%) Solution

Application;	Corrosion inhibitor		
CAS No.	14307-35-8	EINECS No.	238-244-7
Assay;	35 – 37%		
Mol. Formula;	Li ₂ CrO ₄	Storage;	Store in a cool, dry place
Density;	1.35	Appearance;	Clear, yellowish, odorless solution
		Hazards;	Flammable, Toxic
Packaging;	30 liter plastic cans		

Lithium Citrate Tetrahydrate*

*Also available as milled grade

Application;	Raw material for pharmaceuticals and building materials		
CAS No.	6080-58-6	EINECS No.	213-045-8
Assay;	min. 99%		
Mol. Formula;	$C_6H_5Li_3O_7 - 4 H_2O$	Storage;	Exclusion of moisture
Mol. Weight;	281.98	Appearance;	White Powder
Bulk Density;	0.8 – 0.9 g/cm ³		
Packaging;	Polyethylene bags of 50 kg in fiber drums		

Lithium Fluoride

Application;	Fluxing agent for the glass, ceramic, and enamel industries Raw material for optical lenses and prisms		
CAS No.	7789-24-4	EINECS No.	232-152-0
Appearance;	White crystalline powder		
Mol. Formula;	LiF	Storage;	No special precautions
Mol. Weight;	25.94		
Density;	2.6		

Lithium Hydroxide Monohydrate

Application;	Manufacture of lubricating greases, Starting material for other lithium compounds, Additive in Dyestuffs, Chemical agent in esterifications		
CAS No.	1310-66-3	EINECS No.	215-183-4
Assay;	55% min. LiOH		
Mol. Formula;	$LiOH - H_2O$	Storage;	Exclude air and moisture
Mol. Weight;	41.96	Appearance;	White, fine crystalline powder
Density;	1.51	Hazards;	Corrosive
Packaging;	Fiber drums containing 100 kg net, 3 ply paper bags containing 50 pounds 0/5025 kg. 4 x 25 kg polyethylene bags in 100 kg drums		

Lithium Hydroxide Calcinated

Application;	Air- and gas drying, CO ₂ absorption		
CAS No.	1310-62-5	EINECS No.	215-183-4
Assay;	98% min. LiOH		
Mol. Formula;	LiOH	Storage;	Exclude air and moisture
Mol. Weight;	23.95	Appearance;	White, fine crystalline powder
Density;	1.43	Hazards;	Corrosive
Packaging;	Various, please contact sales office for details		

Lithium Iodide, Anhydrous

Application;	Organic synthesis, iodination, cleavage of esters, ethers, and epoxides, Aldol condensation		
CAS No.	10377-51-2	EINECS No.	233-822-5
Assay;	98% min.		
Mol. Formula;	LiI	Storage;	Exclusion of humidity
Mol. Weight;	133.85	Appearance;	White to light yellow crystalline powder
Bulk Density;	about 1.0 g/cm ³		
Packaging;	Polyethylene bags in clamping ring drum		

Lithium Metaborate

Application;	Fluxing agent for RFA-sample preparation		
CAS No.	13453-69-5	EINECS No.	236-631-5
Assay;	Min. 99%		
Mol. Formula;	LiBO ₂	Storage;	Exclusion of air and humidity
Mol. Weight;	49.75	Appearance;	White powder
Density;	1.4		
Packaging;	50 kg polyethylene bags in clamping ring drums		

Lithium Metasilicate

CAS No.	1010-224-6	EINECS No.	233-27-05
Assay;	Min 96% Li_2SiO_3		
Mol. Formula;	Li_2SiO_3	Storage;	Tightly closed containers
Mol. Weight;	89.97	Appearance;	White powder
Density;	2.52 g/cm ³		
Packaging;	50 kg polyethylene bags in clamping ring drums		

Lithium Molybdate, 37% Aqueous Solution

Application;	Corrosion inhibitor		
CAS No.	13568-40-6	EINECS No.	236-977-7
Assay;	37 – 40%		
Mol. Formula;	Li_2MoO_4	Storage;	Tightly closed containers
Density;	1.24	Appearance;	Clear, odorless solution
Packaging;	5 liter plastic cans		

Lithium Nitrate *

* Available grades include technical and pure

Application;	Strong oxidizing agent, corrosion inhibitor in absorption coolers		
CAS No.	7790-69-4	EINECS No.	232-218-9
Mol. Formula;	LiNO_3	Storage;	Exclusion of air and humidity
Mol. Weight;	68.95	Appearance;	White crystalline powder
Density;	2.37 kg / liter	Hazards;	Oxidizer
Packaging;	Clamping ring drum with polyethylene liner of 50 kg capacity		

Lithium Nitride

CAS No.	26134-62-3	EINECS No.	247-475-2
Assay;	Min 90%, typical 93%		
Mol. Formula;	Li ₃ N	Storage;	Exclusion of air and humidity
Mol. Weight;	34.82	Appearance;	Fine red-brown powder
		Hazards;	Highly flammable, corrosive Violent reaction with water
Packaging;	Polyethylene bags from 5 to 1000 grams in cans Polyethylene bags with 5 or 10 kg in steel drums		

Lithium Orthosilicate

CAS No.	13453-84-4	EINECS No.	236-634-1
Mol. Formula;	Li ₄ SiO ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	105.97	Appearance;	White crystalline powder
Density;	2.4 g / cm ³		
Packaging;	50 kg polyethylene bags in clamping ring drums		

Lithium Perchlorate*

* Available grades include battery and pure

Application;	Electrolyte salt for lithium batteries		
CAS No.	7791-03-9	EINECS No.	232-237-2
Assay;	Typical 99% LiClO ₄		
Mol. Formula;	LiClO ₄	Storage;	Exclusion of air and humidity
Mol. Weight;	106.39	Appearance;	White crystalline powder
Bulk Density;	1.4 kg / liter		
Packaging;	50 kg polyethylene bags in drums		

Lithium Peroxide

Application;	Plastics hardener, air regeneration through CO ₂ absorption and oxygen release		
CAS No.	12031-80-0	EINECS No.	234-758-0
Assay;	Typical 96%		
Mol. Formula;	Li ₂ O ₂	Storage;	Exclusion of air and humidity
Mol. Weight;	45.88	Appearance;	White to pale yellow powder
Density;	2.3 kg / liter	Hazards;	Corrosive, oxidizer
Packaging;	50 kg fiber drums		

Lithium Phosphate*

* Available grades include technical and catalytic

Application;	Additive in the manufacture of special glasses and enamels, stabilizer for polyurethanes		
CAS No.	10377-52-3	EINECS No.	233-823-0
Assay;	Typical 91% Li ₃ PO ₄		
Mol. Formula;	Li ₃ PO ₄	Appearance;	White, crystalline powder
Mol. Weight;	115.8		
Density;	2.54 g / cm ³		
Packaging;	50 kg polyethylene bags in fiber drums		

Lithium Salicylate

Application;	Agent for pharmaceutical synthesis		
CAS No.	552-38-5	EINECS No.	209-011-7
Assay;	Typical greater than 99%		
Mol. Formula;	2-(CO ₂ Li)C ₆ H ₄ OH	Storage;	Cool, exclusion of air and humidity
Mol. Weight;	144.06	Appearance;	White powder
Bulk Density;	0.5 kg / liter		
Packaging;	Polyethylene bags of 15, 50 and 100 kg in fiber or steel drums		

Lithium Succinate

Application;	Raw material for pharmaceuticals		
CAS No.	16090-09-8	EINECS No.	240-248-9
Assay;	Typical greater than 98%		
Mol. Formula;	LiOOC-(CH ₂) ₂ -COOLi	Storage;	Exclusion of air and humidity
Mol. Weight;	129.96	Appearance;	White powder
Bulk Density;	0.4 kg / liter		
Packaging;	50 kg polyethylene bags in fiber drums		

Lithium Sulfate Anhydrous*

* Available in technical and pure grade

Application;	Pharmaceutical manufacture, in the production of special glasses		
CAS No.	10377-48-7	EINECS No.	233-820-4
Assay;	typical 99.0%		
Mol. Formula;	Li ₂ SO ₄	Appearance;	White crystalline powder
Mol. Weight;	109.94		
Bulk Density;	0.8 kg / liter		
Packaging;	50 kg polyethylene bags in clamping ring drums		

Lithium Tetraborate

Application;	Fluxing agent for RFA-sample preparation. Production of special glasses and greases		
CAS No.	12007-60-2	EINECS No.	234-514-3
Assay;	typ. 99.3%		
Mol. Formula;	Li ₂ B ₄ O ₇	Storage;	Exclusion of air and humidity
Mol. Weight;	169.12	Appearance;	White powder
Bulk Density;	0.3 kg / liter		
Packaging;	50 kg fiber drums		

Lithium Metal

Lithium Metal Battery Grade*

* Available forms include rods, blocks, foils, and ingots of various sizes

Application;	Reduction and deoxidizing agent, starting material for organic lithium compounds		
CAS No.	7439-93-2	EINECS No.	231-102-5
Assay;	Lithium, > 99.8% Sodium, typical 200 ppm max.		
Atomic Weight;	6.94	Storage;	Exclusion of air and humidity
Specific Weight;	0.534	Appearance;	Silvery, turns dark grey in air
		Hazards;	Flammable, corrosive
Packaging;	Rods, ingots, and foils in tin cans and drums under Argon		

Lithium Metal Technical Grade*

* Available forms include rods, blocks, granulate, and ingots of various sizes

Application;	Reduction and deoxidizing agent, starting material for organic lithium compounds		
CAS No.	7439-93-2	EINECS No.	231-102-5
Assay;	Lithium, typical 99% Sodium, typical 0.9%		
Atomic Weight;	6.94	Storage;	Exclusion of air and humidity
Specific Weight;	0.534	Appearance;	Silvery, turns dark grey in air
		Hazards;	Flammable, corrosive
Packaging;	Rods and ingots in tin cans and drums under Argon Granulate in polyethylene bags in drums under Argon		

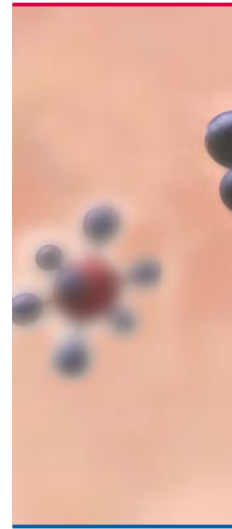
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