



salts, Acids & Bases

Every grade your lab needs

Grade Definitions & Common Applications

Puriss p.a.

Applications: Sensitive Reactions & Syntheses,
Metal-Sensitive Applications

These high-quality salts, acids and bases offer specifications that match or exceed existing regulations and undergo stringent metals testing. They are designed for use in demanding regulated applications that require quality documentation.

ACS Grade

Applications: General Lab Use, Routine Chemical Synthesis Workup,
Drying & Purification, Academic Teaching Labs

ACS solvents meet or exceed the high standards of the American Chemical Society (ACS), with test specifications that are specialized to every compound. Ideal for most research needs, these high-quality solvents deliver replicable, publishable results.

ReagentPlus® Grade

Applications: General Chemical Synthesis, Purification, Cleaning

With a guaranteed purity of $\geq 98.5\%$, and few other specification requirements, ReagentPlus® inorganic salts, acids and bases are ideal for initial experimental workups, which do not require as many specification controls, or for compounds that will be further purified after the reaction or process is completed.

Reagent Grade

Applications: General Lab Use, General Chemical Synthesis,
Purification, Cleaning

Reagent Grade inorganic salts, acids and bases are $\geq 95\%$ pure assays, thus suitable for general lab applications and tests with low specification controls.

Essential Inorganics (selection)

Product Description	Cat. No.
ACS / Puriss Grade Salts and Inorganics	
Gold(III) chloride trihydrate, ACS reagent , ≥49.0% Au basis	G4022
Hydrogen peroxide solution, contains inhibitor, 30 wt. % in H ₂ O, ACS reagent	216763
Iodine, ACS reagent , ≥99.8%, solid	207772
Potassium phosphate dibasic, ACS reagent , ≥98%	P3786
Silver nitrate, ACS reagent , ≥99.0%	209139
Sodium chloride, ACS reagent , ≥99.0%	S9888
Sodium perchlorate, ACS reagent , ≥98.0%	410241
Sodium phosphate monobasic monohydrate, ACS reagent , ≥98%	S9638
ReagentPlus® / Reagent Grade Acids, Bases and Salts	
Acetic acid, glacial, ReagentPlus® , ≥99%	A6283
Calcium chloride, anhydrous, granular, ≤7.0 mm, ≥93.0%	C1016
Cesium chloride, anhydrous, free-flowing, Redi-Dri™, ReagentPlus® , 99.9%	746487
Iron(III) chloride, reagent grade , 97%	157740
Formic acid, reagent grade , ≥95%	F0507
Lithium bromide, ReagentPlus® , ≥99%	213225
Sodium chloride, ReagentPlus® , ≥99%	S9625
Sodium hydroxide solution, 50% in H ₂ O	415413
Sodium hypochlorite solution, reagent grade , available chlorine 4.00-4.99 %	239305
Titanium(IV) chloride, ReagentPlus® , 99.9% trace metals basis	208566
Trifluoroacetic acid, ReagentPlus® , 99%	T6508
Absorbents	
Activated charcoal, DARCO®, -100 mesh particle size, powder	242276
Aluminum oxide, activated, basic, Brockmann I	199443
Celite® 545, filter aid, treated with sodium carbonate, flux calcined	22140
Magnesium sulfate, anhydrous, ReagentPlus® , ≥99.5%	M7506
Molecular sieves, 4 Å, beads, 8-12 mesh	208604
Sand, 50-70 mesh particle size	274739

Innovative solutions

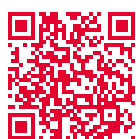
Redi-Dri™ free-flowing salts



Reduce waste & effort – Increase safety & savings

Redi-Dri™ is an innovative product line that eliminates clumps in a broad range of common hygroscopic salts and buffers. Our unique packaging process gives you high-quality, free-flowing, ready-to-use materials – without any chemical additives, anti-clumping agents, or hydrophobic compounds.

Product Description	Cat. No.
Redi-Dri™ Salts	
Cesium chloride, anhydrous, free-flowing, Redi-Dri™, ReagentPlus® , 99.9%	746487
Magnesium sulfate, anhydrous, free-flowing, Redi-Dri™, ReagentPlus® , ≥99.5%	746452
Potassium iodide, anhydrous, free-flowing, Redi-Dri™, ACS reagent , ≥99%	746428
Potassium phosphate monobasic, anhydrous, free-flowing, Redi-Dri™, ACS reagent , ≥99%	795488
Sodium chloride, anhydrous, Redi-Dri™, free-flowing, ACS reagent , ≥99%	746398
Zinc chloride, anhydrous, free-flowing, Redi-Dri™, reagent grade , ≥98%	793523



Discover More

Over 370 ACS inorganic products available

SigmaAldrich.com/researchchemicals



Learn more on
SigmaAldrich.com/redi-dri

Redi-Dri™ Free-Flowing Salts And Buffers

We'll Keep Your Work Flowing!

Improve Your Lab Efficiency

Redi-Dri™ free-flowing, ready-to-use salts and buffers don't harden or clump like most hygroscopic powders. They don't need to be shaken or loosened. And they won't waste your time and energy. They just keep your work flowing.

Redi-Dri™ Product Features and Benefits

Increased efficiency – Eliminate time and effort of loosening hardened powders

Safety – Avoid risks of using tools of force to break up clumps

Ecology – Redi-Dri™ salts reduce waste as they never stick to packaging or need to be prepped

Economy – Faster preparation and solvation increase productivity and reduce costs

Assured quality – Excellent, expert-tested quality with no anti-caking agents

Flexible volumes – Available from research amounts to scale-up quantities

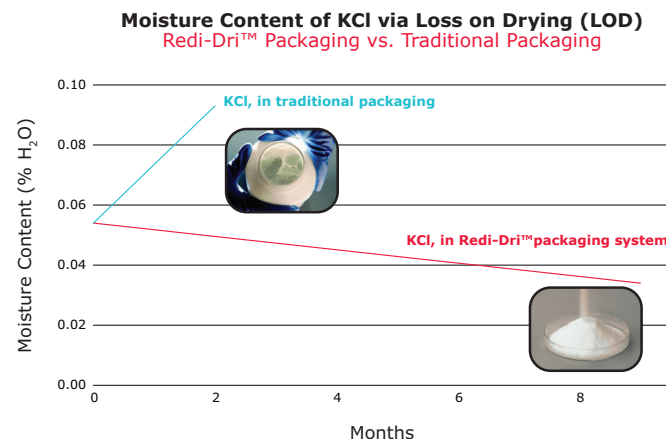
Redi-Dri™ Free-flowing packaging vs traditional packaging



Traditional packaging

Redi-Dri™ Packaging: Proven to Protect

A long-term study was done to compare a hygroscopic salt (KCl) in the Redi-Dri™ system to that in standard packaging. For nine months, loss of drying (LOD) was measured in both cases under humidity-controlled conditions. The results showed a stark difference. KCl in the traditional packaging appeared hard and clumpy, whereas the material in the Redi-Dri™ system had far lower LOD values, and remained free-flowing during the entire test period.



Study the test on:
SigmaAldrich.com/redi-dri-test



Our Most Popular Salts and Buffers

HEPES – One of the best general purpose buffers available for bio-research

Magnesium sulfate – Readily dissolvable for every biochemical application

MOPS – Component of running buffer in fractionation of RNA on formaldehyde agarose gels

Potassium chloride – Dynamic capability of acting as a drying agent or making saline for research

Trizma® and Trizma® HCl – Sigma-Aldrich® brand is the pioneer in Tris for laboratory use



Beaker to Bulk Sizes

From 100 g to 25 kg, order Redi-Dri™ products and reagents in various volumes to suit your needs.

Find Redi-Dri™ products alphabetically and by Grade (ACS, ReagentPlus®, Reagent grade, etc.)

Product Description	Cat. No.
ACES, anhydrous, free-flowing, Redi-Dri™, ≥99.0%	RDD010
Aluminum oxide, activated, acidic, Brockmann I, free-flowing, Redi-Dri™	799300
Aluminum oxide, activated, neutral, Brockmann I, free-flowing, Redi-Dri™	799319
Ammonium chloride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%	901230
Ammonium formate, anhydrous, free-flowing, Redi-Dri™, reagent grade, 97%	798568
Ammonium nitrate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥98%	804819
Ammonium phosphate monobasic, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥98%	795461
Ammonium sulfate, anhydrous, Redi-Dri™, ReagentPlus®, ≥99.0%	901874
Ammonium sulfate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.0%	901229
Ammonium thiocyanate, free-flowing, Redi-Dri™, ACS reagent, ≥97.5%	909009
L-Ascorbic acid, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	795437
2,2'-Bipyridyl, anhydrous, free-flowing, Redi-Dri™, ReagentPlus®, 99%	798533
BIS-TRIS propane, anhydrous, free-flowing, Redi-Dri™, ≥99.0%	RDD014
BIS-TRIS, anhydrous, free-flowing, Redi-Dri™, ≥98.0%	RDD013
Calcium carbonate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	795445
Calcium carbonate, anhydrous, free-flowing, Redi-Dri™, ReagentPlus®, ≥99%	900500
Calcium chloride, anhydrous, free-flowing, Redi-Dri™, ≥97%	746495
Calcium chloride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥96%	793639
Calcium chloride, anhydrous, granular, ≤7.0 mm, free-flowing, Redi-Dri™, ReagentPlus®, ≥93%	902179
CAPS, anhydrous, free-flowing, Redi-Dri™, ≥98.0%	RDD015
Cesium chloride, anhydrous, free-flowing, Redi-Dri™, ReagentPlus®, 99.9%	746487
Citric acid, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%	791725
Copper(II) sulfate, free-flowing, Redi-Dri™, ReagentPlus®, ≥99%	908940
Ethylenediaminetetraacetic acid, anhydrous, free-flowing, powder, Redi-Dri™, ACS reagent, 99.4-100.6%	RDD017
Ethylenediaminetetraacetic acid, anhydrous, free-flowing, Redi-Dri™, ≥98%	798681
Fumaric acid, anhydrous, free-flowing, Redi-Dri™, ≥99%	798673
D-(+)-Glucose, anhydrous, free-flowing, Redi-Dri™, ≥99.5%	RDD016
Glycolic acid, anhydrous, free-flowing, Redi-Dri™, ReagentPlus®, 99%	798053
Guanidine hydrochloride, anhydrous, free-flowing, Redi-Dri™, ≥99%	RDD001

Product Description	Cat. No.
Guanidine thiocyanate, for molecular biology, free-flowing, Redi-Dri™, ≥99.0%	RDD029
HEPES, anhydrous, free-flowing, Redi-Dri™, ≥99.5%	RDD002
Hexamethylenetetramine, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.0%	797979
Hydroxylamine hydrochloride, free-flowing, Redi-Dri™, ACS reagent, 98.0%	911119
Imidazole, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	792527
Kaolin, anhydrous, free-flowing, Redi-Dri™	795453
Lithium bromide, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	746479
Lithium chloride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	746460
Lithium chloride, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, 99%	793620
Lithium hydroxide, free-flowing, Redi-Dri™, powder, reagent grade, ≥98%	909025
Magnesium sulfate, anhydrous, free-flowing, Redi-Dri™, reagent grade, ≥97%	793612
Magnesium sulfate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99.5%	746452
Malonic acid, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, 99%	792535
MES hemisodium, free-flowing, Redi-Dri™, ≥98%	RDD031
MES hydrate, free-flowing, Redi-Dri™, ≥99.0%	RDD030
MOPS sodium salt, anhydrous, free-flowing, Redi-Dri™, ≥99.5%	RDD018
MOPS, anhydrous, free-flowing, Redi-Dri™, ≥99.5%	RDD003
1-Octanesulfonic acid sodium salt, free-flowing, Redi-Dri™, 98%	RDD032
OXONE®, monopersulfate compound, free-flowing, Redi-Dri™	911356
Phosphorus pentoxide, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, 99%	902160
Phthalic anhydride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	797995
PIPES, anhydrous, free-flowing, Redi-Dri™, ≥99%	RDD004
Polyvinylpyrrolidone, free-flowing, Redi-Dri™, powder, average mol wt 40,000	RDD033
Potassium acetate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	791733
Potassium bromide, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	746444
Potassium bromide, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	793604
Potassium carbonate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	791776
Potassium carbonate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, 99%	900501
Potassium carbonate, anhydrous, free-flowing, –325 mesh, Redi-Dri™, reagent grade, ≥98%	900502
Potassium chlorate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	799386
Potassium chloride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	746436
Potassium chloride, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	793590
Potassium hydroxide, free-flowing, Redi-Dri™, reagent grade, 90%, flakes	909122
Potassium iodide, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	746428
Potassium iodide, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, 99%	793582
Potassium persulfate, free-flowing, Redi-Dri™, ACS reagent, ≥99.0%	906735
Potassium phosphate dibasic, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥98%	795496
Potassium phosphate monobasic, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	795488
Potassium phosphate monobasic, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99.0% (titration)	RDD020
Potassium phosphate tribasic, anhydrous, free-flowing, Redi-Dri™, reagent grade, ≥98%	RDD019
Sodium acetate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	791741
Sodium bicarbonate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.7%	792519
Sodium bicarbonate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99.5%	900506
Sodium bisulfite, anhydrous, free-flowing, mixture of NaHSO ₃ and Na ₂ S ₂ O ₅ , Redi-Dri™, ACS reagent	799394
Sodium bromide, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	793574
Sodium bromide, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	746401
Sodium carbonate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%	791768

Product Description	Cat. No.
Sodium carbonate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%	900503
Sodium carbonate, anhydrous, free-flowing, Redi-Dri™, ACS reagent (primary standard), 99.95-100.05% dry basis	900504
Sodium carbonate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99.5%	900505
Sodium chloride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	746398
Sodium chloride, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	793566
Sodium dodecyl sulfate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.0%	RDD021
Sodium formate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	798630
Sodium hydroxide, anhydrous, free-flowing, pellets, Redi-Dri™, ACS reagent, ≥97%	795429
Sodium hydroxide, anhydrous, free-flowing, Redi-Dri™, reagent grade, ≥98%, pellets	901915
Sodium iodide, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%	746371
Sodium iodide, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	793558
Sodium metabisulfite, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	799343
Sodium nitrate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	799351
Sodium nitrite, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥97%	799416
Sodium nitrite, anhydrous, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99.0%	901903
Sodium perchlorate, free-flowing, Redi-Dri™, ACS reagent, ≥98.0%	906700
Sodium persulfate, free-flowing, Redi-Dri™, reagent grade, ≥98%	906743
Sodium phosphate dibasic, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	795410
Sodium phosphate dibasic, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99.0%	RDD022
Sodium phosphate monobasic, anhydrous, free-flowing, Redi-Dri™, ≥99.0%	RDD007
Sodium pyruvate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	792500
Sodium sulfate, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99%	746363
Sodium sulfate, anhydrous, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, ≥99%	793531
Sodium sulfate, anhydrous, granular, free-flowing, Redi-Dri™, ACS reagent, ≥99%	798592
Sodium sulfite, anhydrous, Redi-Dri™, reagent grade, ≥98%	901916
Sodium thiosulfate, free-flowing, Redi-Dri™, <i>ReagentPlus</i> ®, 99%	909173
Succinic acid, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.0%	797987
Sucrose, anhydrous, free-flowing, Redi-Dri™, ACS reagent	RDD023
L-(+)-Tartaric acid, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥99.5%	798665
Tetrabutylammonium hydrogensulfate, anhydrous, free-flowing, Redi-Dri™, 97%	791784
Tricine, anhydrous, free-flowing, Redi-Dri™, ≥99%	RDD024
Trizma® base, anhydrous, free-flowing, Redi-Dri™, ≥99.9%	RDD008
Trizma® hydrochloride, anhydrous, free-flowing, Redi-Dri™, ≥99.0%	RDD009
Urea, free-flowing, Redi-Dri™, Bioreagent, ≥98%	RDD034
Zinc chloride, anhydrous, free-flowing, Redi-Dri™, ACS reagent, ≥97%	746355
Zinc chloride, anhydrous, free-flowing, Redi-Dri™, reagent grade, ≥98%	793523

For more information, visit
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Merck KGaA
Frankfurter Strasse 250
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