

Temperature Shipping Guide

Are you shipping a new temperature-controlled commodity and not quite sure at what temperature it needs to ship? Then this is the guide for you! Keep this guide handy for whenever you're shipping refrigerated or frozen freight.

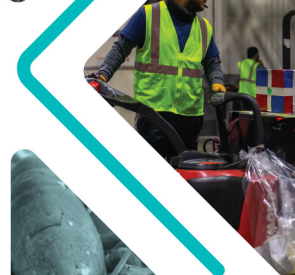


TABLE OF CONTENTS

Introduction.....	3
Food and Beverage Commodities.....	4
A.....	4
B.....	4
C.....	5
D.....	6
E.....	7
F.....	7
G.....	7
H.....	7
I.....	7
J.....	8
K.....	8
L.....	8
M.....	8
N.....	8
O.....	8
P.....	9
R.....	10
S.....	10
T.....	10
V.....	10
W.....	10
Y.....	11
Z.....	11
Other Commodities.....	11
A.....	11
B.....	11
C.....	11
F.....	11
G.....	11
I.....	11
L.....	11
N.....	11
R.....	11
S.....	11
V.....	11
Work With an Expert.....	11
Resources.....	12

INTRODUCTION

Cold chain shipping is complex and specialized. Temperature requirements are a major challenge that make it so complex. Unlike shipping non-perishable products, your freight needs to be kept at its required temperature to not only keep it at its best quality, but for public safety as well.

Before we dive into shipping temperatures for specific products, let's review the standardized temperature zones most often used in cold chains.

These classifications are:

Bananas

Bananas and other tropical fruits like oranges, pineapples, or even potatoes have a temperature range of 53 to 57 degrees Fahrenheit (12 degrees to 14 degrees Celsius). This helps control ripening during transport.

Pharmaceutical

Most pharmaceutical products need temperatures between 35 to 46 degrees Fahrenheit (2 and 8 degrees Celsius).

Chill

This classification is between 35 to 39 degrees Fahrenheit (2 and 4 degrees Celsius) for many other fruits, vegetables, and fresh meat.

Frozen

This temperature range is between 50 to 68 degrees Fahrenheit (minus 10 to minus 20 degrees Celsius) for frozen meat, cakes, and bread.

Deep Frozen

Seafood, ice cream, and other frozen foods need colder temperatures at minus 77 to minus 86 degrees Fahrenheit (minus 25 to minus 30 degrees Celsius).



Ultra-Low

This is a new and growing temperature range often for pharmaceutical products that need temperatures reaching minus 158 degrees Fahrenheit (minus 70 degrees Celsius), like certain vaccines.

FOOD AND BEVERAGE COMMODITIES

These suggested temperatures are merely that, **SUGGESTIONS**. We understand that depending on your product, ultimately it is your product and your determination on what the temperature needs to be. We simply hope that you use this guide as a starting point should you need it.

COMMODITY	TEMPERATURE (°F)	TEMPERATURE (°C)
Anise, fresh	32-36	89-96
Alcohol	55-65	131-149
Almond Milk	34	93
Almond Butter	34	93
Almond Flour	35	95
Almond Paste	35	95
Almonds	34	93
Aloe	50	122
Apples, fresh	32-36	89-96
Apple Cider	35	95
Apple Juice Concentrate	0	32
Applesauce	35	95
Apricots, fresh	32	89
Artichoke	32	89
Asparagus	32	89
Avocado	40-55	104-131
Bacon	32	89
Bagels, fresh	32	89
Bagels, frozen	0	32
Bagged Rice	40-50	104-122
Baked Goods, fresh	32	89
Baked Goods, frozen	0	32
Bananas	56-58	132-136
Basil	38	100

Beans, Lima	41-43	105-109
Beans, Snap	40-45	104-113
Beef, fresh	34	95
Beef, frozen	0	32
Beer	40	104
Beets	32	89
Berries, fresh	31-32	87-89
Berries, frozen	0	32
Beverages	34	93
Biscuits, fresh	32	89
Biscuits, frozen	0	32
Bison	0	32
Black Beans, fresh	32	89
Bok Choy, fresh	32-34	89-93
Bottled Wine	55-65	131-149
Bread, fresh	28	82
Bread, frozen	0	32
Breakfast hash browns	0	32
Broccoli, fresh	32	89
Broccoli, frozen	0	32
Brownies, fresh	34	93
Brownies, frozen	0	32
Brussel sprouts, fresh	32	89
Brussel sprouts, frozen	0	32
Butter	32	89
Butternut squash, fresh	34	93
Butternut squash, frozen	0	32
Cabbage, fresh	32	89
Cake, fresh	34	93
Cake, frozen	0	32
Cantaloupes, fresh	36-41	96-105
Cantaloupes, frozen	0	32
Carrots, fresh	32	89
Carrots, frozen	0	32
Cauliflower pizza	0	32
Cauliflower, fresh	32	89
Cauliflower, frozen	0	32
Celery, fresh	32	89
Cream Cheese	34	93

Cheese (blocks, shredded, string)	20-40	68-104
Cheesecake, frozen	0	32
Cherries, fresh	32	89
Cherries, frozen	0	32
Chicken, fresh	26	78
Chicken, frozen	0	32
Chocolates	50-60	122-140
Cilantro, fresh	36	96
Clams, fresh	35	95
Clams, frozen	0	32
Clementines, fresh	42	107
Coconut, fresh	60	140
Coconut flakes	0	32
Coconut water	34	93
Coffee, ground	34	93
Coffee, beans	0	32
Coffee creamer	34	93
Coffee extract	40	104
Cold brew coffee	35	35
Cookie dough, ready to bake	0	32
Cookie dough, edible	34	93
Cookies and crackers	60	140
Corn, fresh	32	89
Corn, frozen	0	32
Corned beef, frozen	0	32
Cottage cheese	35	95
Cotton candy	45	113
Cranberries, fresh	36-40	96-104
Croissants, ready to bake	0	32
Cucumbers, fresh	50-55	122-131
Cured meats	28-34	82-93
Dairy Products (yogurt, milk)	35	95
Dates, fresh	32	89
Dates, frozen	0	32
Dragon fruit, fresh	45	113
Deli cheeses	28	82
Deli meats	34	93
Dried fruits and nuts	32-50	89-122
Donuts, fresh	34	93

Donuts, frozen	0	32
Dough, ready to bake	34	93
Dough, prepared, ready to bake, frozen	0	32
Dressings	68	154
Dried fruits	50	122
Dry Ice	Minus 109.3	Minus 78.5
Dried nuts	60	140
Eggplant, fresh	46-54	114-129
Eggs, fresh	27-34	80-93
Empanadas, frozen	0	32
English muffins, fresh	34	93
English muffins, frozen	0	32
Figs, fresh	32	89
Fish, fresh	24-35	75-95
Fish, frozen	0	32
Flour	34	93
Flour tortillas	34	93
French fries, frozen	0	32
Fruits, fresh	34	93
Fruits, frozen	0	32
Garlic, fresh	32-34	89-93
Ginger roots	48	118
Grapes, fresh	32	89
Grapefruit, fresh	50-60	122-140
Green beans, fresh	30-45	86-113
Green beans, frozen	0	32
Guacamole, fresh	34	93
Gummy bears	60	140
Ham, fresh	34	93
Ham, frozen	0	32
Hamburger buns, fresh	34	93
Hamburger buns, frozen	34	93
Hash browns, frozen	0	32
Honeydew, fresh	45	113
Hotdogs, fresh	34	93
Hops	Minus 5 - 30	23 - 86
Horseradish	28	82
Hot sauce	50-65	122-149
Ice	0	32

	Minus 20 – Minus 10	Minus 4 - 14
Ice cream		
Iced Tea, Lemonade	34	93
Imitation crab meat, frozen	0	32
Jackfruit, fresh	56	132
Jalapenos, fresh	40	104
Juice, fresh	32	89
Juice concentrate, frozen	0	32
Kale, fresh	32	89
Key limes, fresh	48-50	118-122
Kiwis, fresh	32	89
Kombucha	34	93
Kumquat, fresh	39	102
Lemon juice, fresh	34	93
Lemons, fresh	45-55	113-131
Lentil, fresh	32	89
Lentil, frozen	0	32
Lettuce, fresh	32	89
Licorice	60	140
Limes, fresh	48-50	118-122
Liquid food flavoring	39-59	102-138
Lychee, fresh	35-50	95-122
Mandarins, fresh	36-38	96-100
Mangos, fresh	55	131
Mashed potatoes, ready to eat	32-38	89-100
Mayonnaise	35	95
Melons, fresh	45-50	113-122
Milk, fresh	32	89
Mozzarella cheese	34	93
Muffins, fresh	34	93
Muffins, frozen	0	32
Mushrooms, fresh	32	89
Mushrooms, frozen	0	32
Nectarines, fresh	32	89
Oat milk	32	89
Olives, fresh	55-65	131-149
Olive oil	50	122
Okra, fresh	45-50	113-122
Onions, fresh	32	89
Orange juice, fresh	32-34	89-93

Orange juice concentrate, frozen	0	32
Oranges, fresh	34-40	93-104
Palm flakes	58	136
Palm oil	65	149
Papayas, fresh	50	122
Parsley, fresh	32	89
Parsnips, fresh	32	89
Passionfruit, fresh	45-50	113-122
Pasta, fresh	34	93
Pastries, fresh	34	93
Pastries, frozen	0	32
Peaches, fresh	32	89
Peaches, frozen	0	32
Peanuts	60	140
Pears, fresh	32	89
Peas, fresh	32	89
Peas, frozen	0	32
Peeled garlic	32	89
Pepperonis, fresh	32	89
Peppers, fresh	45-55	113-131
Pesto	32-35	89-95
Pickles	32-36	89-96
Pies, fresh	34	93
Pies, frozen	0	32
Pineapple, fresh	45-55	113-131
Pizza, frozen	0	32
Plant based dairy products	34	93
Plums, fresh	32	89
Pomegranates, fresh	41	105
Popcorn	60	140
Popsicles	0	32
Pork, fresh	26	78
Pork, frozen	0	32
Potatoes, fresh	40-60	104-140
Potatoes, frozen	0	32
Poultry, fresh	28	82
Poultry, frozen	0	32
Prunes, fresh	55	131
Pudding, ready to eat	34-40	93-104

Puff pastry, frozen	0	32
Pumpkins	45-55	113-131
Radishes, fresh	32	89
Raspberries, fresh	32	89
Red cabbage, fresh	36	96
Rhubarb, fresh	32	89
Salad mix, fresh	32	89
Salad dressing	35	95
Salami, fresh	34	93
Salami, frozen	0	32
Salmon, fresh	34	93
Salmon, frozen	0	32
Shallots, fresh	32	89
Shortening	32	89
Shrimp, fresh	34	93
Shrimp, frozen	0	32
Smoothie mix, frozen	0	32
Sorbet, frozen	0	32
Soup, ready to eat	32-34	89-93
Sour cream	34	93
Spices	65	149
Spinach, fresh	32	89
Spinach, frozen	0	32
Squash, fresh	41-50	105-122
Strawberries, fresh	32	89
Strawberries, frozen	0	32
Sweet potatoes, fresh	55-60	131-140
Sweet potatoes, frozen	0	32
Tangerines, fresh	40	104
Tea, prepared, ready to drink	34-40	93-104
Tilapia, fresh	34	93
Tilapia, frozen	0	32
Tofu	35	95
Tomatoes, fresh	46-70	114-158
Turkey, fresh	27	80
Turkey, frozen	0	0
Turnips, fresh	32	89
Vegetables, fresh	35	95
Vegetables, frozen	0	32

Watermelon, fresh	50-60	131-140
Wheat gluten	65	149
Yogurt	32-34	89-93
Zucchini, fresh	42	107
Zucchini, frozen	0	32

OTHER COMMODITIES

COMMODITY	TEMPERATURE (° F)	TEMPERATURE (° C)
Aerosol spray/Asthma Inhaler	Minus 16 – Minus 13	2-8
Acrylic Acid	Minus 9 – Minus 3	15-25
Acrylic Latex	Minus 8 – Minus 3	16-26
Adhesives	Minus 15 - 3	4-38
Batteries	45	113
Biologicals/Biopharmaceuticals	Minus 16 – Minus 13	2-8
Candle wax	65	149
Flowers, cut, fresh	34-38	93-100
Flowers, tropical	50-55	122-131
Glaucoma Eye Drops	Minus 16 – Minus 13	2-8
Insulin	Minus 16 – Minus 13	2-8
Leather	65-72	149-161
Liquid latex	50-70	122-158
Nursery plants	60-70	140-158
Rubber	55-70	131-158
Sod grass	50	122
Vaccines	Minus 16 – Minus 13	2-8

WORK WITH AN EXPERT

As you can see above, not all temperature-controlled products require the same specifications. Each product is unique and requires specialized solutions throughout the cold chain.

Because temperature-controlled shipping can be complicated, many cold chain manufacturers are turning to third-party logistics companies (3PLs) to handle their specialized shipping. For your cold chain to be successful, you need to be sure to have an expert who understands your industry, regulations, and product's requirements.

Luckily, you don't have to look very far to find one. With over 40 years in business, and cold storage provider Burriss Logistics as our parent company, Trinity is experienced in both cold chain and complicated situations.

Request a quote today at <https://trinitylogistics.com/request-a-quote/> or by calling 866-603-5679.

This article provides information only and should not be construed as advice. It is provided without warranty of any kind.

RESOURCES

* Information was found from our own data and external resources such as those listed below.

<https://www.ams.usda.gov/rules-regulations/paca/good-delivery>

https://www.pma.com/-/media/pma-files/covid19/know_your_commodity.pdf?la=en

https://www.apl.com/static/eCommerce/PDFFlyers/ReeferGuideBook_English.pdf

https://www.cncargocool.com/images/Reefer_Commodities_v2.pdf

<https://inchem.org/documents/hsg/hsg/v104hsg.htm#:~:text=Ideally%20acrylic%20acid%20should%20be,food%2C%20drink%20and%20animal%20feed.>

<https://www.tec4med.com/5-most-common-cold-chain-drugs/>



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Contact us today to find your customized logistics solution for your temperature-controlled products.