

# 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 to 8 degrees Celsius).



## Chill

This classification is between 35 to 39 degrees Fahrenheit (2 to 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 ultimately, it is YOUR product and thus your determination at what temperature it needs to ship at. 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	0 - 2
Alcohol	55-65	13 - 18
Almond Milk	34	1
Almond Butter	34	1
Almond Flour	35	2
Almond Paste	35	2
Almonds	34	1
Aloe	50	10
Apples, fresh	32-36	0 - 2
Apple Cider	35	2
Apple Juice Concentrate	0	Minus 18
Applesauce	35	2
Apricots, fresh	32	0
Artichoke	32	0
Asparagus	32	0
Avocado	40-55	4 - 13
Bacon	32	0
Bagels, fresh	32	0
Bagels, frozen	0	Minus 18
Bagged Rice	40-50	4 - 10
Baked Goods, fresh	32	0
Baked Goods, frozen	0	Minus 18
Bananas	56-58	13 - 14
Basil	38	3

Beans, Lima	41-43	5 - 6
Beans, Snap	40-45	4 - 7
Beef, fresh	34	1
Beef, frozen	0	Minus 18
Beer	40	4
Beets	32	0
Berries, fresh	31-32	0
Berries, frozen	0	Minus 18
Beverages	34	1
Biscuits, fresh	32	0
Biscuits, frozen	0	Minus 18
Bison	0	Minus 18
Black Beans, fresh	32	0
Bok Choy, fresh	32-34	0 - 1
Bottled Wine	55-65	13 - 18
Bread, fresh	28	Minus 2
Bread, frozen	0	Minus 18
Breakfast hash browns	0	Minus 18
Broccoli, fresh	32	0
Broccoli, frozen	0	Minus 18
Brownies, fresh	34	1
Brownies, frozen	0	Minus 18
Brussel sprouts, fresh	32	0
Brussel sprouts, frozen	0	Minus 18
Butter	32	0
Butternut squash, fresh	34	1
Butternut squash, frozen	0	Minus 18
Cabbage, fresh	32	0
Cake, fresh	34	1
Cake, frozen	0	Minus 18
Cantaloupes, fresh	36-41	2-5
Cantaloupes, frozen	0	Minus 18
Carrots, fresh	32	0
Carrots, frozen	0	Minus 18
Cauliflower pizza	0	Minus 18
Cauliflower, fresh	32	0
Cauliflower, frozen	0	Minus 18
Celery, fresh	32	0
Cream Cheese	34	1

Cheese (blocks, shredded, string)	20-40	Minus 6 – (+4)
Cheesecake, frozen	0	Minus 18
Cherries, fresh	32	0
Cherries, frozen	0	Minus 18
Chicken, fresh	26	Minus 3
Chicken, frozen	0	Minus 18
Chocolates	50-60	10 - 16
Cilantro, fresh	35	2
Clams, fresh	35	2
Clams, frozen	0	Minus 18
Clementines, fresh	42	6
Coconut, fresh	60	16
Coconut flakes	0	Minus 18
Coconut water	34	1
Coffee, ground	34	1
Coffee, beans	0	Minus 18
Coffee creamer	34	1
Coffee extract	40	4
Cold brew coffee	35	2
Cookie dough, ready to bake	0	Minus 18
Cookie dough, edible	34	1
Cookies and crackers	60	16
Corn, fresh	32	0
Corn, frozen	0	Minus 18
Corned beef, frozen	0	Minus 18
Cottage cheese	35	2
Cotton candy	45	7
Cranberries, fresh	36-40	2-4
Croissants, ready to bake	0	Minus 18
Cucumbers, fresh	50-55	10 - 13
Cured meats	28-34	Minus 2 – (+1)
Dairy Products (yogurt, milk)	35	2
Dates, fresh	32	0
Dates, frozen	0	Minus 18
Dragon fruit, fresh	45	7
Deli cheeses	28	Minus 2
Deli meats	34	1
Dried fruits and nuts	32-50	0 - 10
Donuts, fresh	34	1

Donuts, frozen	0	Minus 18
Dough, ready to bake	34	1
Dough, prepared, ready to bake, frozen	0	Minus 18
Dressings	68	20
Dried fruits	50	10
Dry Ice	Minus 109	Minus 78
Dried nuts	60	16
Eggplant, fresh	46-54	8 - 12
Eggs, fresh	27-34	Minus 2 – (+1)
Empanadas, frozen	0	Minus 18
English muffins, fresh	34	1
English muffins, frozen	0	Minus 18
Figs, fresh	32	0
Fish, fresh	24-35	Minus 4 – (+2)
Fish, frozen	0	Minus 18
Flour	34	1
Flour tortillas	34	1
French fries, frozen	0	Minus 18
Fruits, fresh	34	1
Fruits, frozen	0	Minus 18
Garlic, fresh	32-34	0 - 1
Ginger roots	48	9
Grapes, fresh	32	0
Grapefruit, fresh	50-60	10 - 16
Green beans, fresh	30-45	Minus 1 – (+7)
Green beans, frozen	0	Minus 18
Guacamole, fresh	34	1
Gummy bears	60	16
Ham, fresh	34	1
Ham, frozen	0	Minus 18
Hamburger buns, fresh	34	1
Hamburger buns, frozen	34	1
Hash browns, frozen	0	Minus 18
Honeydew, fresh	45	7
Hotdogs, fresh	34	1
Hops	0 - 14	Minus 18 – Minus 10
Horseradish	28	Minus 2
Hot sauce	50-65	10 - 18
Ice	0	Minus 18

Ice cream	Minus 20 – Minus 10	Minus 29 – Minus 12
Iced Tea, Lemonade	34	1
Imitation crab meat, frozen	0	Minus 18
Jackfruit, fresh	56	13
Jalapenos, fresh	40	4
Juice, fresh	32	0
Juice concentrate, frozen	0	Minus 18
Kale, fresh	32	0
Key limes, fresh	48-50	9-10
Kiwis, fresh	32	0
Kombucha	34	1
Kumquat, fresh	39	4
Lemon juice, fresh	34	1
Lemons, fresh	45-55	7-13
Lentil, fresh	32	0
Lentil, frozen	0	Minus 18
Lettuce, fresh	32	0
Licorice	60	16
Limes, fresh	48-50	9-10
Liquid food flavoring	39-59	4-15
Lychee, fresh	35-50	2-10
Mandarins, fresh	36-38	2-3
Mangos, fresh	55	13
Mashed potatoes, ready to eat	32-38	0-3
Mayonnaise	35	2
Melons, fresh	45-50	7-10
Milk, fresh	32	0
Mozzarella cheese	34	1
Muffins, fresh	34	1
Muffins, frozen	0	Minus 18
Mushrooms, fresh	32	0
Mushrooms, frozen	0	Minus 18
Nectarines, fresh	32	0
Oat milk	32	0
Olives, fresh	55-65	13-18
Olive oil	50	10
Okra, fresh	45-50	7-10
Onions, fresh	32	0
Orange juice, fresh	32-34	0-1



Orange juice concentrate, frozen	0	Minus 18
Oranges, fresh	34-40	1-4
Palm flakes	58	14
Palm oil	65	18
Papayas, fresh	50	10
Parsley, fresh	32	0
Parsnips, fresh	32	0
Passionfruit, fresh	45-50	7-10
Pasta, fresh	34	1
Pastries, fresh	32-60	0-16
Pastries, frozen	0	Minus 18
Peaches, fresh	32	0
Peaches, frozen	0	Minus 18
Peanuts	60	16
Pears, fresh	32	0
Peas, fresh	32	0
Peas, frozen	0	Minus 18
Peeled garlic	32	0
Pepperonis, fresh	32	0
Peppers, fresh	45-55	7 - 13
Pesto	32-35	0-2
Pickles	32-36	0-2
Pies, fresh	34	1
Pies, frozen	0	Minus 18
Pineapple, fresh	45-55	7-13
Pizza, frozen	0	Minus 18
Plant based dairy products	34	1
Plums, fresh	32	0
Pomegranates, fresh	41	5
Popcorn	60	16
Popsicles	0	Minus 18
Pork, fresh	26	Minus 3
Pork, frozen	0	Minus 18
Potatoes, fresh	40-60	4-16
Potatoes, frozen	0	Minus 18
Poultry, fresh	28	Minus 2
Poultry, frozen	0	Minus 18
Prunes, fresh	55	13
Pudding, ready to eat	34-40	7-13

Puff pastry, frozen	0	Minus 18
Pumpkins	45-55	7-13
Radishes, fresh	32	0
Raspberries, fresh	32	0
Red cabbage, fresh	36	2
Rhubarb, fresh	32	0
Salad mix, fresh	32	0
Salad dressing	35	2
Salami, fresh	34	1
Salami, frozen	0	Minus 18
Salmon, fresh	34	1
Salmon, frozen	0	Minus 18
Shallots, fresh	32	0
Shortening	32	0
Shrimp, fresh	34	1
Shrimp, frozen	0	Minus 18
Smoothie mix, frozen	0	Minus 18
Sorbet, frozen	0	Minus 19
Soup, ready to eat	32-34	0-1
Sour cream	34	1
Spices	65	18
Spinach, fresh	32	0
Spinach, frozen	0	Minus 18
Squash, fresh	41-50	5-10
Strawberries, fresh	32	0
Strawberries, frozen	0	Minus 18
Sweet potatoes, fresh	55-60	13-16
Sweet potatoes, frozen	0	Minus 18
Tangerines, fresh	40	4
Tea, prepared, ready to drink	34-40	1-4
Tilapia, fresh	34	1
Tilapia, frozen	0	Minus 18
Tofu	35	2
Tomatoes, fresh	46-70	8-21
Turkey, fresh	27	Minus 3
Turkey, frozen	0	Minus 18
Turnips, fresh	32	0
Vegetables, fresh	35	2
Vegetables, frozen	0	Minus 18

Watermelon, fresh	50-60	10-16
Wheat gluten	65	18
Yogurt	32-34	0-1
Zucchini, fresh	42	6
Zucchini, frozen	0	Minus 18

## OTHER COMMODITIES

COMMODITY	TEMPERATURE ( °F )	TEMPERATURE ( °C )
Aerosol spray/Asthma Inhaler	Minus 16 – Minus 13	Minus 27 – Minus 25
Acrylic Acid	Minus 9 – Minus 3	Minus 23 – Minus 19
Acrylic Latex	Minus 8 – Minus 3	Minus 22 – Minus 19
Adhesives	Minus 15 - 3	16 - 27
Batteries	45	7
Biologicals/Biopharmaceuticals	Minus 16 – Minus 13	Minus 27 – Minus 25
Candle wax	65	18
Flowers, cut, fresh	34-38	1 - 3
Flowers, tropical	50-55	10 - 13
Glaucoma Eye Drops	Minus 16 – Minus 13	Minus 27 – Minus 25
Insulin	Minus 16 – Minus 13	Minus 27 – Minus 25
Leather	65-72	18 - 22
Liquid latex	50-70	10 - 21
Nursery plants	60-70	16 - 21
Rubber	55-70	13 - 21
Sod grass	50	10
Vaccines	Minus 16 – Minus 13	Minus 27 – Minus 25

## 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. Trinity Logistics has over 45 years of experience, helping thousands of businesses move temperature-controlled freight safely and efficiently. We know the rules and requirements inside and out. As a full-service logistics provider, we're here to handle your temperature-sensitive shipments whenever you need us, making the process smooth and stress-free.

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://incchem.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/>



## CONNECT WITH US



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