

Table S1: Details of the ice cream samples

Flavors and related inclusions (decorations or toppings) of 200 milk-based industrial ice creams in tub purchased at different stores of the mass-market retailers in Italy.

ID	Flavor on the label	Decoration	Topping	Flavor on the ingredient tag	Country of production
1	Apple Strudel	Biscuit pieces	Vanilla	Custard Vanilla	Germany
2	Salted pistachio	Pistachio sprinkle	Pistachio cream	Pistachio	Italy
3	Hazelnut and gianduja	Hazelnuts Hazelnut sprinkle Chocolate flakes	Gianduja	Hazelnut Gianduja	Italy
4	Cassata	Candied fruit Chocolate sprinkle	None	Ricotta	Italy
5	Marsala cream and pistachio	Strawberries Pistachio sprinkle	Strawberry Gianduja	Marsala custard Pistachio	Italy
6	Pistachio and gianduja	Pistachio sprinkle Hazelnut sprinkle	Gianduja	Pistachio Gianduja	Italy
7	Milk cream	None	None	Cream	Italy
8	Panna cotta	Almond sprinkle	Caramel	Cream	Italy
9	Triple chocolate	Chocolate flakes	White chocolate	Dark chocolate Milk chocolate	Italy
10	Black forest	Candied cherries Chocolate flakes	Cherry	Dark chocolate Vanilla	Germany
11	Tiramisù	Biscuit pieces Coffee grains Cocoa powder	None	Mascarpone with egg yolk	Germany
12	Almond	Almond sprinkle	None	Almond	Italy
13	Hazelnut	Hazelnut sprinkle	None	Hazelnut	Italy
14	Vanilla	None	None	Vanilla	Italy
15	Mint and chocolate	Chocolate flakes	None	Mint	Italy
16	Stracciatella	Chocolate sprinkle	None	Vanilla	Germany
17	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Germany
18	Hazelnut	None	None	Hazelnut	Italy
19	Crème and chocolate	None	None	Chocolate cream	Italy

20	Spagnola	Candied cherries	Cherry	Cream Vanilla	Italy
21	Pistachio	Pistachio sprinkle	None	Pistachio	Italy
22	Lemon	None	Lemon	Lemon	Italy
23	Cream	Biscuit pieces	Amaretto	Cream	Italy
24	Strawberry and lemon	None	None	Strawberry Lemon	Italy
25	Stracciatella	Chocolate sprinkle	Dark chocolate	Vanilla	Italy
26	Mascarpone	Pistachio sprinkle	Forest Fruit	Mascarpone	Germany
27	Walnut	Caramelized walnuts sprinkle	None	Walnut	Italy
28	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
29	Low-fat cocoa drowned	Chocolate flakes Chocolate sprinkle	Dark chocolate	Vanilla	Italy
30	Custard and chocolate	None	None	Custard Chocolate	Italy
31	Coffee cream	Coffee grains	Nougat	Coffee	Italy
32	Chocolate	Chocolate flakes	None	Chocolate	Italy
33	Variegated black cherry	Biscuit pieces Chocolate sprinkle Candied black cherries	Black cherry	Vanilla	Italy
34	Vanilla and pistachio	Pistachio sprinkle	Pistachio	Vanilla	Italy
35	Vanilla and almonds	Candied almond sprinkle	None	Vanilla	Italy
36	Stracciatella	Chocolate sprinkle	None	Cream	Italy
37	Hazelnut	Hazelnut sprinkles	Low fat cocoa Hazelnut	Hazelnut	Italy
38	Hazelnut and chocolate	Chocolate sprinkles	None	Hazelnut Chocolate	Italy
39	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
40	Variegated coffee	Coffee grains	Coffee	Vanilla	Italy
41	Dark chocolate	Chocolate sprinkle	None	Chocolate	Italy
42	Stracciatella	Chocolate sprinkle	None	Vanilla	Italy
43	Chocolate drowned	Chocolate sprinkle	Dark Chocolate	Cream Vanilla	Italy

44	Pistachio	Pistachio sprinkle	None	Pistachio	Italy
45	Tiramisù	Sponge cakes pieces Coffee Cocoa powder1	Milk Chocolate	Tiramisu taste	Italy
46	Truffle ice cream	Hazelnut sprinkle Chocolate sprinkle	None	Cocoa	Italy
47	Cocoa cream	None	None	Custard Cocoa	Italy
48	Cream	None	None	Cream	Italy
49	Strawberry drowned	Meringues	Strawberry	Strawberry Vanilla	Italy
50	Coffee	None	None	Coffee	Italy
51	Triple chocolate	Chocolate flakes Chocolate sprinkles	Dark chocolate	Dark chocolate Milk chocolate White chocolate	Italy
52	Cream and hazelnut	Hazelnut sprinkles	Dark chocolate	Cream Hazelnut	Italy
53	Cannoli	Waffle pieces Chocolate sprinkles	None	Ricotta	Italy
54	Cream and strawberry	None	Strawberry	Cream Strawberry	Italy
55	Whisky and coffee	Coffee grains	Coffee	Coffee	Italy
56	Variegated chocolate	Chocolate flakes Chocolate grains	Chocolate	Chocolate	Italy
57	Variegated black cherry	Chocolate sprinkle Candied black cherries	Black cherry	Vanilla	Italy
58	Yogurt	None	None	Yogurt	Italy
59	Caramel	Biscuit pieces	Caramel	Vanilla	Italy
60	Triple chocolate	Chocolate flakes Chocolate sprinkles	Dark chocolate	Dark chocolate Milk chocolate White chocolate	Italy
61	Chocolate	Chocolate biscuit pieces	None	Chocolate	Italy
62	Vanilla	Chocolate biscuit pieces	None	Vanilla	Italy
63	Nuts	Walnut sprinkles	None	Walnut	Italy

64	Variegated hazelnut	Hazelnut sprinkles	Hazelnut	Hazelnut	Italy
65	Custard	Biscuit pieces	None	Custard	Italy
66	Pistachio and gianduja	Pistachio sprinkle Hazelnut sprinkle	Gianduja	Pistachio Gianduja	Italy
67	Cassata	Candied fruit Sponge cakes pieces	None	Ricotta	Italy
68	Tiramisù	Biscuit pieces Coffee grains Cocoa powder	None	Mascarpone with egg yolk	Italy
69	Bacio	Hazelnuts	Dark chocolate	Cocoa Hazelnut	Italy
70	Licorice	None	None	Cream	Italy
71	Stracciatella	Chocolate sprinkle	None	Vanilla	Italy
72	Spagnola	Candied cherries	Cherry	Cream Vanilla	Italy
73	Variegated coffee	Coffee grains	Coffee	Coffee	Italy
74	Panna cotta	Almond sprinkle	Caramel	Cream	Italy
75	Triple chocolate	Chocolate flakes	Dark chocolate	Dark chocolate Milk chocolate White chocolate	Italy
76	Cookie	Biscuit pieces Chocolate sprinkles	Oats	Vanilla	Italy
77	Caramelized yogurt	None	Caramel	Yogurt	Italy
78	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
79	Yogurt	None	None	Yogurt	Italy
80	Pistachio	None	None	Pistachio	Italy
81	Chocolate drowned	Milk chocolate flakes	Milk chocolate	Vanilla	Italy
82	Yogurt	None	None	Yogurt	Italy
83	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
84	White chocolate	None	None	Chocolate	Italy
85	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
86	Pistachio drowned	White chocolate flakes	Pistachio	Vanilla	Italy
87	Hazelnut	None	None	Hazelnut	Italy

88	Chocolate with cashews	Cashew sprinkles	Chocolate Caramel	Chocolate	Italy
89	Milk chocolate	None	None	Chocolate	Italy
90	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
91	Triple chocolate	Chocolate flakes	White chocolate	Dark chocolate Milk chocolate	Italy
92	Hazelnut	None	None	Hazelnut	Italy
93	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
94	Pistachio	None	None	Pistachio	Italy
95	Chocolate	None	None	Chocolate	Italy
96	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
97	Milk cream	None	None	Cream	Italy
98	Vanilla	None	None	Vanilla	Italy
99	Vanilla and pistachio	Pistachio sprinkle	Pistachio	Vanilla	Italy
100	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
101	Hazelnut	None	None	Hazelnut	Italy
102	Triple chocolate	Chocolate flakes	White chocolate	Dark chocolate Milk chocolate	Italy
103	Yogurt	None	None	Yogurt	Italy
104	Vanilla	None	None	Vanilla	Italy
105	Coffee	None	None	Coffee	Italy
106	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
107	Custard	None	None	Custard	Italy
108	Chocolate drowned	Milk chocolate flakes	Milk chocolate	Vanilla	Italy
109	Custard	None	None	Custard	Italy
110	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
111	Coffee	None	None	Coffee	Italy
112	Chocolate	None	None	Chocolate	Italy
113	Hazelnut	None	None	Hazelnut	Italy
114	Vanilla	None	None	Vanilla	Italy
115	Almond	None	None	Almond	Italy
116	Spagnola	Candied cherries	Cherry	Cream	Italy

				Vanilla	
117	Coffee	None	None	Coffee	Italy
118	Vanilla and pistachio	Pistachio sprinkle	Pistachio	Vanilla	Italy
119	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
120	Vanilla	None	None	Vanilla	Italy
121	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
122	Pistachio	None	None	Pistachio	Italy
123	Chocolate with cashews	Cashew sprinkles	Chocolate Caramel	Chocolate	Italy
124	Hazelnut	None	None	Hazelnut	Italy
125	Zabaione	None	None	Zabaione	Italy
126	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
127	Coffee	None	None	Coffee	Italy
128	Pistachio	None	None	Pistachio	Italy
129	Hazelnut	None	None	Hazelnut	Italy
130	Vanilla	None	None	Vanilla	Italy
131	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
132	Chocolate drowned	Milk chocolate flakes	Milk chocolate	Vanilla	Italy
133	Coffee	None	None	Coffee	Italy
134	Yogurt	None	None	Yogurt	Italy
135	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
136	Almond	None	None	Almond	Italy
137	Pistachio	None	None	Pistachio	Italy
138	Mint	None	None	Mint	Italy
139	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
140	Chocolate	None	None	Chocolate	Italy
141	Hazelnut	None	None	Hazelnut	Italy
142	Vanilla	None	None	Vanilla	Italy
143	Almond	None	None	Almond	Italy
144	White chocolate	None	None	Chocolate	Italy
145	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
146	Pistachio drowned	White chocolate flakes	Pistachio	Vanilla	Italy
147	Coffee	None	None	Coffee	Italy

148	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Germany
149	Almond	None	None	Almond	Italy
150	Vanilla	None	None	Vanilla	Italy
151	Pistachio	None	None	Pistachio	Italy
152	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
153	Hazelnut	None	None	Hazelnut	Italy
154	Chocolate drowned	Milk chocolate flakes	Milk chocolate	Vanilla	Italy
155	Almond	None	None	Almond	Italy
156	Pistachio drowned	White chocolate flakes	Pistachio	Vanilla	Italy
157	Coffee	None	None	Coffee	Italy
158	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
159	Hazelnut	None	None	Hazelnut	Italy
160	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
161	Vanilla	None	None	Vanilla	Italy
162	Yogurt	None	None	Yogurt	Italy
163	Triple chocolate	Chocolate flakes	White chocolate	Dark chocolate Milk chocolate	Italy
164	Coffee	None	None	Coffee	Italy
165	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
166	Pistachio and gianduja	Pistachio sprinkle Hazelnut sprinkle	Gianduja	Pistachio Gianduja	Italy
167	Spagnola	Candied cherries	Cherry	Cream Vanilla	Italy
168	Pistachio	None	None	Pistachio	Italy
169	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
170	Coffee	None	None	Coffee	Italy
171	Almond	None	None	Almond	Italy
172	Pistachio and gianduja	Pistachio sprinkle Hazelnut sprinkle	Gianduja	Pistachio Gianduja	Germany
173	Dark chocolate	None	None	Dark chocolate	Italy
174	Chocolate	None	None	Chocolate	Italy
175	Chocolate	None	None	Chocolate	Italy

176	Yogurt	None	None	Yogurt	Italy
177	Pistachio	None	None	Pistachio	Italy
178	Caramel	Biscuit pieces	Caramel	Vanilla	Italy
179	Vanilla	None	None	Vanilla	Italy
180	Panna cotta	Almond sprinkle	Caramel	Cream	Germany
181	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
182	Pistachio and gianduja	Pistachio sprinkle Hazelnut sprinkle	Gianduja	Pistachio Gianduja	Italy
183	Spagnola	Candied cherries	Cherry	Cream Vanilla	Italy
184	Hazelnut	None	None	Hazelnut	Italy
185	Caramel	Biscuit pieces	Caramel	Vanilla	Italy
186	Chocolate drowned	Milk chocolate flakes	Milk chocolate	Vanilla	Italy
187	Yogurt	None	None	Yogurt	Italy
188	Pistachio drowned	White chocolate flakes	Pistachio	Vanilla	Italy
189	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
190	Pistachio	None	None	Pistachio	Italy
191	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
192	Milk cream	None	None	Milk cream	Italy
193	Yogurt	None	None	Yogurt	Italy
194	Coffee drowned	Coffee grains Cocoa powder	Coffee	Vanilla	Italy
195	Dark chocolate	None	None	Chocolate	Italy
196	White chocolate	None	None	Chocolate	Italy
197	Sour cherry ripple	Candied black cherries	Black cherry	Vanilla	Italy
198	Chocolate	None	None	Chocolate	Italy
199	Hazelnut	Hazelnut sprinkle	Dark chocolate	Hazelnut	Italy
200	Chocolate	None	None	Chocolate	Italy