



Safety Data Sheet (SDS)

Lithium-ion Battery Pack

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER

- **Product Name:** Rechargeable Multi-Cell Lithium-ion Battery Packs
- **Product Code/Model:** List of models can be found in section 16 of this SDS.
- **Product Type:** Rechargeable Multi-Cell Lithium-ion Battery Packs

MANUFACTURER CONTACT INFORMATION

Re:Build TPS I, LLC
12th Street, Building 225
New Kensington, PA 15068

RECOMMENDED USE AND RESTRICTIONS

Identified uses: Rechargeable lithium-ion battery pack. For use as a battery-based power supply only.

Restrictions on Use: Do not rupture or expose solution inside of the cell or pack.

EMERGENCY TELEPHONE NUMBER

Emergency Contact: 1-800-262-8200 (U.S.)

SECTION 2 – HAZARDS IDENTIFICATION

Health	Environmental	Physical
Eye Irritation: No classified hazards	Acute Toxicity: No classified hazards	Flammable Liquid: No classified hazards
Skin Irritation: No classified hazards	Chronic Toxicity: No classified hazards	
Acute Toxicity, Oral: No classified hazards		
Acute Toxicity, Inhalation: No classified hazards		



Table 1: Hazard and Precautionary Statements

Precautionary Statement(s)	
Prevention	P102: Keep out of reach of children. P103: Read label prior to use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking. P234: Keep only in original container. P254: Wash hands thoroughly after handling.
Response (if cell/battery leaks)	P260: Do not breathe vapor or spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301/330/331: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. P303/361/353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304/340: If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P363: Wash contaminated clothing before reuse. P370: In case of fire: Use carbon dioxide, dry chemical or water extinguisher. P391: Collect spillage.
Health (if cell/battery leaks)	H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H350: May cause cancer (inhalation). H351: Suspected of causing cancer. H372: STOT RE 1 – Causes damage to organs (lungs, teeth) through prolonged or repeated exposure. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects.
Storage (Store as indicated in Section 7)	P402: Store in a dry place. P405: Store locked up. P410: Protect from sunlight.
Disposal	P406: Store any spilled/leaking electrolyte material in a corrosive resistant container with a resistant inner liner. P501: Dispose of batteries in accordance with applicable hazardous waste regulations.

**OTHER HAZARDS:**

- Risk of fire and explosion if battery is punctured, crushed, short-circuited, exposed to high temperatures, or improperly charged
- Thermal runaway can occur under abuse conditions, leading to rapid temperature increase, venting, and potential fire
- May release toxic and corrosive fumes if involved in a fire

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS**Article Statement:**

This product is a manufactured article. Under normal conditions of use, the battery is sealed and there is no exposure to hazardous materials. The following information applies to the internal contents in case of damage, leakage, or exposure during recycling/disposal.



Table 2: Hazardous Components (Internal Contents)

Cell component	CAS No.	Concentration %
Electrolyte		95%
Electrolyte Salt	21324-40-3	
Electrolyte Solvents	105-58-8	
	616-38-6	
PVDF	24937-79-9	
Copper	7440-50-8	
Aluminum	7429-90-5	
Cathode	12190-79-3	
	7439-96-5	
	7440-02-0	
	7429-90-5	
Anode	7782-42-5	
Steel, Nickel, and inert components	Various	
Pack Component		
Nylon 12	25038-74-8	>1%
Copper	7440-50-8	4%
Aluminum	7429-90-5	>1%
Cellulose	9004-34-6	0.10%
Inorganic Pigments	-	0.10%
Zinc Chloride	7646-85-7	0.10%
Acrylic resin	-	>1%

SECTION 4 – FIRST AID

DESCRIPTION OF FIRST AID MEASURES

No exposure risk during routine handling of pack assembly. Risk of exposure occurs if battery pack is abused, mechanically or electrically.

No effect under routine handling and use to eyes, skin or if inhaled. Ingestion is not likely due to the physical size of the battery pack. If parts are swallowed, seek medical attention immediately.



If exposure to internal material within cell due to damaged outer casing the following actions are recommended:

EYE CONTACT	If eye contact with contents of an open cell occurs, immediately flush the contaminated eye(s) with water. Quickly transport the victim to an emergency care facility.
SKIN CONTACT	Immediately flush with water. If irritation or pain persists, seek medical attention.
INHALATION	Remove the patient from exposure into fresh air, seek medical attention.
INGESTION	Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Contact your local poison control center and quickly transport victim to an emergency care facility.

SECTION 5 – FIREFIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

Dry chemical, carbon dioxide and foam. Water acts as a cooling agent.

UNSUITABLE EXTINGUISHING MEDIA

Strong oxidizing agents, strong reducing agents, strong acids and strong alkalis.

PRODUCTS OF COMBUSTION:

The interaction of water vapor and exposed lithium hexafluorophosphate (LiPF₆) may result in the generation of hydrogen and hydrogen fluoride (HF) gas. Contact with battery electrolyte may be irritating to skin, eyes, and mucous membranes. Thermal degradation may produce hazardous fumes of lithium, cobalt and manganese, hydrofluoric acid, hydrogen and oxides of carbon, aluminum, lithium, copper, and cobalt as well as smoke and irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

ADVICE FOR FIREFIGHTERS:

In case of fire where lithium-ion cells and batteries are present, flood the area with water. If any cells or batteries are burning, water may not extinguish them, but will cool the adjacent cells or batteries and control the spread of fire. Carbon Dioxide, dry chemical and foam extinguishers may be preferred for small fires, but also may not extinguish burning lithium-ion cells or batteries. Burning cells or batteries will burn themselves out. Virtually all fires involving lithium-ion cells and batteries can be controlled with water. When water is used, however, hydrogen gas may evolve which can form an explosive mixture with air. LITH-X (powdered graphite) or copper powder fire extinguishers, sand, dry ground dolomite or soda ash may also be used. These materials act as smothering agents.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

- For non-emergency personnel.
 - As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed areas before entering. Wear adequate personal protective equipment as indicated in Section 8.
- For emergency responders
 - As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind and keep out of low areas. Ventilate closed areas before entering. Do not enter corrosive vapor contaminated areas without a respirator, Powered Air Purifying Respirator (PAPR), or Self-Contained (SCBA) Breathing Apparatus. Suitable fabric for personal protective clothing: Chemical resistance gloves, safety glasses/goggles or face shield and chemical resistant clothing. Wear adequate personal protective equipment as indicated in Section 8.

ENVIRONMENTAL PRECAUTIONS

- 6.2.1. Absorb spilled material with non-reactive absorbent such as vermiculite, clay or earth. Prevent from migration into soil, sewers and natural waterways – inform local authorities if this occurs.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- Evacuate spill area immediately and remove sources of ignition. Do NOT touch spilled material. Use non-sparking tools and equipment where applicable. Ensure that cleanup procedures do not expose spilled material to any moisture. Cover all drains and exits to the environment to prevent migration into the soil, sewers and natural waterways.
- Cleanup personnel must be trained in the safe handling of this product. Spills may be absorbed by non-reactive absorbents such as vermiculite and then collected with an electrically protected vacuum cleaner or by wet-brushing and placing into a suitable container for disposal. Place cells or batteries into individual plastic bags and then place into appropriate containers and close tightly for disposal. Immediately transport closed containers outside. Lined steel drums are suitable for storage of damaged cells or batteries until proper disposal can be arranged. Ventilate area and wash spill site after material pickup is complete. Please consult local regulations on disposal of hazardous waste for complete details.
- Never dispose of damaged cells or batteries in a fire.



SECTION 7 – HANDLING AND STORAGE

HANDLING:

Do not disassemble batteries or battery pack. Do not puncture, crush, short or dispose of in fire. Do not use or charge damaged, defective or deformed batteries.

STORAGE:

Store in a cool dry place away from sparks and ignition sources. To minimize any adverse effects on cell and/or battery performance, it is recommended that the cells and/or batteries be kept at room temperature (25°C +/- 5°C). Elevated temperatures can result in shortened cell and/or battery life. Keep out of reach of children.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION:

Eye protection is not required when handling cells or batteries during normal use.

Wear chemical resistant safety glasses/goggles or face shield if handling a leaking or ruptured cell or battery.

SKIN PROTECTION:

Hand protection is not required when handling the cell or battery during normal use.

Chemical resistant gloves are recommended when dealing with a leaking or ruptured cell or battery.

RESPIRATORY PROTECTION:

Not necessary under conditions of normal use.

ENGINEERING CONTROLS:

Not necessary under conditions of normal use.

GENERAL HYGIENE

CONSIDERATIONS:

Not necessary under conditions of normal use.

EXPOSURE GUIDELINES:

Not necessary under conditions of normal use.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

Table 3: Physical and Chemical Properties

Appearance	Battery pack	Upper/Lower flammability or explosive limits	Not Applicable*
Odor	Odorless	Vapor pressure	Not Applicable*
Odor threshold	Not Applicable*	Vapor density	Not Applicable*
pH	Not Applicable*	Relative density	Not Applicable*
Melting Point/Freezing point	Not Applicable*	Solubility in water	Insoluble
Initial boiling point and boiling range	Not Applicable*	Octanol/Water Partition Coefficient	Not Applicable*
Flash point	Not Applicable*	Auto Ignition Temperature	Not Applicable*
Evaporation rate	Not Applicable*	Decomposition temperature	90°C
Flammability (solid, gas)	Not Applicable*	Viscosity	Not Applicable*

*The information is based on the properties of sealed, contained, uncompromised cells or batteries.

SECTION 10 – STABILITY AND REACTIVITY**REACTIVITY:**

The cells or batteries do not pose any further reactivity hazards other than those listed in the following sub-sections.

CHEMICAL STABILITY:

The cells or batteries are stable under normal ambient and anticipated conditions of use, storage and transport.

**POSSIBILITY OF HAZARDOUS REACTIONS:**

Keep away from water, strong oxidizing agents, strong reducing agents, strong acids and strong alkalis. Reaction of the leaking electrolyte materials with water may produce flammable and explosive hydrogen gas as well as corrosive hydrogen fluoride gas. Hazardous polymerization does not occur.

CONDITIONS TO AVOID:

Avoid exposing the cells or batteries to fire or temperatures above 80°C. Do not disassemble, crush, short circuit, puncture, immerse in liquid, burn, expose to flame or install with incorrect polarity. Avoid mechanical, physical or electrical abuse.

INCOMPATIBLE MATERIALS:

Do not immerse in water or other high conductivity liquids.

HAZARDOUS DECOMPOSITION PRODUCTS:

May decompose to produce hydrogen fluoride, phosphorus oxides, sulfur oxides, sulfuric acid, lithium hydroxide, carbon monoxide and carbon dioxide.

SECTION 11 – TOXICOLOGY INFORMATION**LIKELY ROUTES OF EXPOSURE:**

Inhalation, skin, and eye contact.

EXPOSURE EFFECTS:

Severe and sometimes delayed effects of hydrogen fluoride are due to deep tissue penetration by the fluoride ion. Exposure can cause skin, tissue and even bone damage. Exposure to hydrofluoric acid fumes sufficient to cause pain requires immediate hospitalization for monitoring for pulmonary edema.

Immediately flush eyes or skin with water for at least 20 minutes to neutralize the acidity, remove some fluoride, and seek medical attention.

OTHER:

No further data know.

**SECTION 12 – ECOLOGICAL INFORMATION****ECOLOGICAL TOXICITY:**

No information available.

SECTION 13 – DISPOSAL CONSIDERATIONS**DISPOSAL METHODS:**

Battery recycling is encouraged. Batteries should not be released into the environment, and do not dump into any body of water or sewer drain. Batteries should be fully discharged, with terminal covered before sent to recycling center. Dispose of in accordance with local, state, and federal laws and regulations.

SECTION 14 – TRANSPORT INFORMATION

Lithium-ion cells and batteries are regulated for land, sea and air transportation.

⚠️ PROTOTYPE BATTERY - SPECIAL TRANSPORT REQUIREMENTS APPLY**THIS BATTERY HAS NOT COMPLETED UN 38.3 TESTING**

These batteries are prototype or pre-production units that have not passed UN Manual of Tests and Criteria, Part III, Section 38.3 testing. Transport is subject to special provisions for prototype batteries.

Note: Cells and Batteries must always be protected against short-circuiting during transport. Special precautions should be undertaken when damaged or defective cells and batteries are transported. You must contact the manufacturer before transporting damaged or defective cells and batteries. It is prohibited to carry defective or damaged cells and batteries by air.

Lithium-ion batteries are regulated as Class 9 Dangerous Goods for transport by air, sea, rail, and road.

UN Number:

- UN3480 – Lithium-ion batteries (batteries packed alone)
- UN3481 – Lithium-ion batteries packed with equipment or contained in equipment

UN Proper Shipping Name:

- UN3480: Lithium ion batteries
- UN3481: Lithium ion batteries packed with equipment / Lithium ion batteries contained in equipment

Transport Hazard Class: 9 (Miscellaneous Dangerous Goods)



Packing Group: Packing Group I

Environmental Hazards: Not classified as marine pollutant (unless specified otherwise)

Special Precautions for User:

- Packages must be marked and labeled according to applicable regulations
- Proper documentation required (e.g., Shipper's Declaration for Dangerous Goods for air transport)
- Batteries must be protected against short circuit
- Batteries must be securely packaged to prevent movement and damage
- Damaged or defective batteries have additional restrictions and may be forbidden

Regulatory Information by Mode of Transport:

DOT (US Department of Transportation - Road/Rail):

- Regulated under 49 CFR 173.185(e) (for cells and batteries)

SECTION 15 – REGULATORY INFORMATION

U.S.A regulations

U.S.A Inventory (TSCA)

- Lithium nickel cobalt aluminum oxide: Listed
- Graphite: Listed
- Copper: Listed
- Iron: Listed
- Aluminum(metal) : Listed
- Dimethyl-carbonate: Listed
- Polyethylene: Listed
- Silicon: Listed
- Ethylene-carbonate: Listed
- Fluoroethylene carbonate: Listed
- Lithium bis(fluorosulfonyl) imide: Listed
- Nickel: Listed
- Lithium carbonate: Listed

U.S.A management information (OSHA Regulation) : Not regulated

U.S.A management information (EPCRA 302 Regulation) : Not regulated

U.S.A management information (EPCRA 304 Regulation) : Not regulated

U.S.A management information (EPCRA 313 Regulation) :

- Lithium nickel cobalt aluminum oxide: Regulated (Nickel Compounds) (Cobalt compounds)
- Copper: Regulated
- Aluminum(metal) : Regulated (fume or dust)
- Nickel: Regulated
- Lithium carbonate: Regulated

SECTION 16 – OTHER INFORMATION
Table 4: Pack capacities and watt hour ratings.

Model Number	Nominal Voltage [V]	Typical Capacity [Ah]	Watt Hour Rating [Wh] [Volts x Ah]	Equivalent Lithium Content [g] [cell Ah x 0.3 x #cells]	Weight [grams]
0101-0401-10-02	14.4	5	72	1.2	361
0101-0402-10-02	14.4	10	144	2.4	675
0101-0403-10-02	14.4	15	216	3.6	989
0101-0404-10-02	14.4	20	288	4.8	1303
0101-0405-10-02	14.4	25	360	6	1617
0101-0406-10-02	14.4	30	432	7.2	1931
0101-0407-10-02	14.4	35	504	8.4	2245
0101-0408-10-02	14.4	40	576	9.6	2559
0101-0409-10-02	14.4	45	648	10.8	2873
0101-0410-10-02	14.4	50	720	12	3187
0101-0411-10-02	14.4	55	792	13.2	3501
0101-0412-10-02	14.4	60	864	14.4	3815



0101-0601-10-02	21.6	5	108	1.8	518
0101-0602-10-02	21.6	10	216	3.6	989
0101-0603-10-02	21.6	15	324	5.4	1460
0101-0604-10-02	21.6	20	432	7.2	1931
0101-0605-10-02	21.6	25	540	9	2402
0101-0606-10-02	21.6	30	648	10.8	2873
0101-0607-10-02	21.6	35	756	12.6	3344
0101-0608-10-02	21.6	40	864	14.4	3815
0101-0609-10-02	21.6	45	972	16.2	4285
0101-0610-10-02	21.6	50	1080	18	4756
0101-0611-10-02	21.6	55	1188	19.8	5227
0101-0612-10-02	21.6	60	1296	21.6	5698
0101-0801-10-02	28.8	5	144	2.4	675
0101-0802-10-02	28.8	10	288	4.8	1303
0101-0803-10-02	28.8	15	432	7.2	1931
0101-0804-10-02	28.8	20	576	9.6	2559
0101-0805-10-02	28.8	25	720	12	3187
0101-0806-10-02	28.8	30	864	14.4	3815
0101-0807-10-02	28.8	35	1008	16.8	4442
0101-0808-10-02	28.8	40	1152	19.2	5070
0101-0809-10-02	28.8	45	1296	21.6	5698



0101-0810-10-02	28.8	50	1440	24	6326
0101-0811-10-02	28.8	55	1584	26.4	6954
0101-1001-10-02	36.0	5	180	3	832
0101-1002-10-02	36.0	10	360	6	1617
0101-1003-10-02	36.0	15	540	9	2402
0101-1004-10-02	36.0	20	720	12	3187
0101-1005-10-02	36.0	25	900	15	3971
0101-1006-10-02	36.0	30	1080	18	4756
0101-1007-10-02	36.0	35	1260	21	5541
0101-1008-10-02	36.0	40	1440	24	6326
0101-1201-10-02	43.2	5	216	3.6	989
0101-1202-10-02	43.2	10	432	7.2	1931
0101-1203-10-02	43.2	15	648	10.8	2873
0101-1204-10-02	43.2	20	864	14.4	3815
0101-1205-10-02	43.2	25	1080	18	4756
0101-1206-10-02	43.2	30	1296	21.6	5698
0101-1207-10-02	43.2	35	1512	25.2	6640
0101-1401-10-02	50.4	5	252	4.2	1146
0101-1402-10-02	50.4	10	504	8.4	2245
0101-1403-10-02	50.4	15	756	12.6	3344
0101-1404-10-02	50.4	20	1008	16.8	4442



0101-1405-10-02	50.4	25	1260	21	5541
0101-1406-10-02	50.4	30	1512	25.2	6640
0201-0401-10-02	13.6	11.05	150	1.2	448
0201-0601-10-02	20.4	11.05	225	1.8	671
0201-0801-10-02	27.2	11.05	301	2.4	895
0201-1001-10-02	34.0	11.05	376	3	1119
0201-1201-10-02	40.8	11.05	451	3.6	1342
0201-1401-10-02	47.6	11.05	526	4.2	1566
0402-0601-20-02	23.2	17	394	1.8	1240
0301-0401-10-02	14.7	5.3	78	1.2	539
0301-0601-10-02	22.1	5.3	117	1.8	808
0301-0801-10-02	29.4	5.3	156	2.4	1077
0301-1001-10-02	36.8	5.3	195	3	1346
0301-1201-10-02	44.2	5.3	234	3.6	1615
0301-1401-10-02	51.5	5.3	273	4.2	1884
0102-0401-10-02	14.4	5	72	1.2	342
0102-0402-10-02	14.4	10	144	2.4	636
0102-0403-10-02	14.4	15	216	3.6	930
0102-0404-10-02	14.4	20	288	4.8	1225
0102-0405-10-02	14.4	25	360	6	1519
0102-0406-10-02	14.4	30	432	7.2	1813



0102-0407-10-02	14.4	35	504	8.4	2108
0102-0408-10-02	14.4	40	576	9.6	2402
0102-0409-10-02	14.4	45	648	10.8	2696
0102-0410-10-02	14.4	50	720	12	2990
0102-0411-10-02	14.4	55	792	13.2	3285
0102-0412-10-02	14.4	60	864	14.4	3579
0102-0601-10-02	21.6	5	108	1.8	489
0102-0602-10-02	21.6	10	216	3.6	930
0102-0603-10-02	21.6	15	324	5.4	1372
0102-0604-10-02	21.6	20	432	7.2	1813
0102-0605-10-02	21.6	25	540	9	2255
0102-0606-10-02	21.6	30	648	10.8	2696
0102-0607-10-02	21.6	35	756	12.6	3138
0102-0608-10-02	21.6	40	864	14.4	3579
0102-0609-10-02	21.6	45	972	16.2	4021
0102-0610-10-02	21.6	50	1080	18	4462
0102-0611-10-02	21.6	55	1188	19.8	4903
0102-0612-10-02	21.6	60	1296	21.6	5345
0102-0801-10-02	28.8	5	144	2.4	636
0102-0802-10-02	28.8	10	288	4.8	1225
0102-0803-10-02	28.8	15	432	7.2	1813



0102-0804-10-02	28.8	20	576	9.6	2402
0102-0805-10-02	28.8	25	720	12	2990
0102-0806-10-02	28.8	30	864	14.4	3579
0102-0807-10-02	28.8	35	1008	16.8	4168
0102-0808-10-02	28.8	40	1152	19.2	4756
0102-0809-10-02	28.8	45	1296	21.6	5345
0102-0810-10-02	28.8	50	1440	24	5933
0102-0811-10-02	28.8	55	1584	26.4	6522
0102-1001-10-02	36.0	5	180	3	783
0102-1002-10-02	36.0	10	360	6	1519
0102-1003-10-02	36.0	15	540	9	2255
0102-1004-10-02	36.0	20	720	12	2990
0102-1005-10-02	36.0	25	900	15	3726
0102-1006-10-02	36.0	30	1080	18	4462
0102-1007-10-02	36.0	35	1260	21	5198
0102-1008-10-02	36.0	40	1440	24	5933
0102-1201-10-02	43.2	5	216	3.6	930
0102-1202-10-02	43.2	10	432	7.2	1813
0102-1203-10-02	43.2	15	648	10.8	2696
0102-1204-10-02	43.2	20	864	14.4	3579
0102-1205-10-02	43.2	25	1080	18	4462



0102-1206-10-02	43.2	30	1296	21.6	5345
0102-1207-10-02	43.2	35	1512	25.2	6228
0102-1401-10-02	50.4	5	252	4.2	1078
0102-1402-10-02	50.4	10	504	8.4	2108
0102-1403-10-02	50.4	15	756	12.6	3138
0102-1404-10-02	50.4	20	1008	16.8	4168
0102-1405-10-02	50.4	25	1260	21	5198
0102-1406-10-02	50.4	30	1512	25.2	6228
0201-0401-10-01	13.6	11.05	150	1.2	448
0201-0601-10-01	20.4	11.05	225	1.8	671
0201-0801-10-01	27.2	11.05	301	2.4	895
0201-1001-10-01	34.0	11.05	376	3	1119
0201-1201-10-01	40.8	11.05	451	3.6	1342
0201-1401-10-01	47.6	11.05	526	4.2	1566
0301-0401-10-01	14.7	5.3	78	1.2	539
0301-0601-10-01	22.1	5.3	117	1.8	808
0301-0801-10-01	29.4	5.3	156	2.4	1077
0301-1001-10-01	36.8	5.3	195	3	1346
0301-1201-10-01	44.2	5.3	234	3.6	1615
0301-1401-10-01	51.5	5.3	273	4.2	1884
0101-0401-10-01	14.4	5	72	1.2	361



0101-0601-10-01	21.6	5	108	1.8	518
0101-0801-10-01	28.8	5	144	2.4	675
0101-1201-10-01	43.2	5	216	3.6	989
0101-1401-10-01	50.4	5	252	4.2	1146
0101-0402-10-01	14.4	10	144	2.4	675
0101-0602-10-01	21.6	10	216	3.6	989
0101-0802-10-01	28.8	10	288	4.8	1303
0101-1202-10-01	43.2	10	432	7.2	1931
0101-1402-10-01	50.4	10	504	8.4	2245
0101-0403-10-01	14.4	15	216	3.6	989
0101-0603-10-01	21.6	15	324	5.4	1460
0101-0803-10-01	28.8	15	432	7.2	1931
0101-1203-10-01	43.2	15	648	10.8	2873
0101-1403-10-01	50.4	15	756	12.6	3344
0101-0404-10-01	14.4	20	288	4.8	1303
0101-0604-10-01	21.6	20	432	7.2	1931
0101-0804-10-01	28.8	20	576	9.6	2559
0101-1204-10-01	43.2	20	864	14.4	3815
0101-1404-10-01	50.4	20	1008	16.8	4442
0101-0405-10-01	14.4	25	360	6	1617
0101-0605-10-01	21.6	25	540	9	2402



0101-0805-10-01	28.8	25	720	12	3187
0101-1205-10-01	43.2	25	1080	18	4756
0101-1405-10-01	50.4	25	1260	21	5541
0101-0406-10-01	14.4	30	432	7.2	1931
0101-0606-10-01	21.6	30	648	10.8	2873
0101-0806-10-01	28.8	30	864	14.4	3815
0101-1206-10-01	43.2	30	1296	21.6	5698
0101-1406-10-01	50.4	30	1512	25.2	6640
0101-0407-10-01	14.4	35	504	8.4	2245
0101-0607-10-01	21.6	35	756	12.6	3344
0101-0807-10-01	28.8	35	1008	16.8	4442
0101-1207-10-01	43.2	35	1512	25.2	6640
0101-0408-10-01	14.4	40	576	9.6	2559
0101-0608-10-01	21.6	40	864	14.4	3815
0101-0808-10-01	28.8	40	1152	19.2	5070
0101-1001-10-01	36.0	5	180	3	832
0101-1002-10-01	36.0	10	360	6	1617
0101-1003-10-01	36.0	15	540	9	2402
0101-1004-10-01	36.0	20	720	12	3187
0101-1005-10-01	36.0	25	900	15	3971
0101-1006-10-01	36.0	30	1080	18	4756



0101-1007-10-01	36.0	35	1260	21	5541
0101-1008-10-01	36.0	40	1440	24	6326
0101-0409-10-01	14.4	45	648	10.8	2873
0101-0609-10-01	21.6	45	972	16.2	4285
0101-0809-10-01	28.8	45	1296	21.6	5698
0101-0410-10-01	14.4	50	720	12	3187
0101-0610-10-01	21.6	50	1080	18	4756
0101-0810-10-01	28.8	50	1440	24	6326
0101-0411-10-01	14.4	55	792	13.2	3501
0101-0611-10-01	21.6	55	1188	19.8	5227
0101-0811-10-01	28.8	55	1584	26.4	6954
0101-0412-10-01	14.4	60	864	14.4	3815
0101-0612-10-01	21.6	60	1296	21.6	5698
0102-0401-10-01	14.4	5	72	1.2	342
0102-0601-10-01	21.6	5	108	1.8	489
0102-0801-10-01	28.8	5	144	2.4	636
0102-1201-10-01	43.2	5	216	3.6	930
0102-1401-10-01	50.4	5	252	4.2	1078
0102-0402-10-01	14.4	10	144	2.4	636
0102-0602-10-01	21.6	10	216	3.6	930
0102-0802-10-01	28.8	10	288	4.8	1225



0102-1202-10-01	43.2	10	432	7.2	1813
0102-1402-10-01	50.4	10	504	8.4	2108
0102-0403-10-01	14.4	15	216	3.6	930
0102-0603-10-01	21.6	15	324	5.4	1372
0102-0803-10-01	28.8	15	432	7.2	1813
0102-1203-10-01	43.2	15	648	10.8	2696
0102-1403-10-01	50.4	15	756	12.6	3138
0102-0404-10-01	14.4	20	288	4.8	1225
0102-0604-10-01	21.6	20	432	7.2	1813
0102-0804-10-01	28.8	20	576	9.6	2402
0102-1204-10-01	43.2	20	864	14.4	3579
0102-1404-10-01	50.4	20	1008	16.8	4168
0102-0405-10-01	14.4	25	360	6	1519
0102-0605-10-01	21.6	25	540	9	2255
0102-0805-10-01	28.8	25	720	12	2990
0102-1205-10-01	43.2	25	1080	18	4462
0102-1405-10-01	50.4	25	1260	21	5198
0102-0406-10-01	14.4	30	432	7.2	1813
0102-0606-10-01	21.6	30	648	10.8	2696
0102-0806-10-01	28.8	30	864	14.4	3579
0102-1206-10-01	43.2	30	1296	21.6	5345



0102-1406-10-01	50.4	30	1512	25.2	6228
0102-0407-10-01	14.4	35	504	8.4	2108
0102-0607-10-01	21.6	35	756	12.6	3138
0102-0807-10-01	28.8	35	1008	16.8	4168
0102-1207-10-01	43.2	35	1512	25.2	6228
0102-0408-10-01	14.4	40	576	9.6	2402
0102-0608-10-01	21.6	40	864	14.4	3579
0102-0808-10-01	28.8	40	1152	19.2	4756
0102-1001-10-01	36.0	5	180	3	783
0102-1002-10-01	36.0	10	360	6	1519
0102-1003-10-01	36.0	15	540	9	2255
0102-1004-10-01	36.0	20	720	12	2990
0102-1005-10-01	36.0	25	900	15	3726
0102-1006-10-01	36.0	30	1080	18	4462
0102-1007-10-01	36.0	35	1260	21	5198
0102-1008-10-01	36.0	40	1440	24	5933
0102-0409-10-01	14.4	45	648	10.8	2696
0102-0609-10-01	21.6	45	972	16.2	4021
0102-0809-10-01	28.8	45	1296	21.6	5345
0102-0410-10-01	14.4	50	720	12	2990
0102-0610-10-01	21.6	50	1080	18	4462



0102-0810-10-01	28.8	50	1440	24	5933
0102-0411-10-01	14.4	55	792	13.2	3285
0102-0611-10-01	21.6	55	1188	19.8	4903
0102-0811-10-01	28.8	55	1584	26.4	6522
0102-0412-10-01	14.4	60	864	14.4	3579
0102-0612-10-01	21.6	60	1296	21.6	5345
0101-0401-10-03	14.4	5	72	1.2	361
0101-0601-10-03	21.6	5	108	1.8	518
0101-0801-10-03	28.8	5	144	2.4	675
0101-1201-10-03	43.2	5	216	3.6	989
0101-1401-10-03	50.4	5	252	4.2	1146
0101-0402-10-03	14.4	10	144	2.4	675
0101-0602-10-03	21.6	10	216	3.6	989
0101-0802-10-03	28.8	10	288	4.8	1303
0101-1202-10-03	43.2	10	432	7.2	1931
0101-1402-10-03	50.4	10	504	8.4	2245
0101-0403-10-03	14.4	15	216	3.6	989
0101-0603-10-03	21.6	15	324	5.4	1460
0101-0803-10-03	28.8	15	432	7.2	1931
0101-1203-10-03	43.2	15	648	10.8	2873
0101-1403-10-03	50.4	15	756	12.6	3344



0101-0404-10-03	14.4	20	288	4.8	1303
0101-0604-10-03	21.6	20	432	7.2	1931
0101-0804-10-03	28.8	20	576	9.6	2559
0101-1204-10-03	43.2	20	864	14.4	3815
0101-1404-10-03	50.4	20	1008	16.8	4442
0101-0405-10-03	14.4	25	360	6	1617
0101-0605-10-03	21.6	25	540	9	2402
0101-0805-10-03	28.8	25	720	12	3187
0101-1205-10-03	43.2	25	1080	18	4756
0101-1405-10-03	50.4	25	1260	21	5541
0101-0406-10-03	14.4	30	432	7.2	1931
0101-0606-10-03	21.6	30	648	10.8	2873
0101-0806-10-03	28.8	30	864	14.4	3815
0101-1206-10-03	43.2	30	1296	21.6	5698
0101-1406-10-03	50.4	30	1512	25.2	6640
0101-0407-10-03	14.4	35	504	8.4	2245
0101-0607-10-03	21.6	35	756	12.6	3344
0101-0807-10-03	28.8	35	1008	16.8	4442
0101-1207-10-03	43.2	35	1512	25.2	6640
0101-0408-10-03	14.4	40	576	9.6	2559
0101-0608-10-03	21.6	40	864	14.4	3815



0101-0808-10-03	28.8	40	1152	19.2	5070
0101-1001-10-03	36.0	5	180	3	832
0101-1002-10-03	36.0	10	360	6	1617
0101-1003-10-03	36.0	15	540	9	2402
0101-1004-10-03	36.0	20	720	12	3187
0101-1005-10-03	36.0	25	900	15	3971
0101-1006-10-03	36.0	30	1080	18	4756
0101-1007-10-03	36.0	35	1260	21	5541
0101-1008-10-03	36.0	40	1440	24	6326
0101-0409-10-03	14.4	45	648	10.8	2873
0101-0609-10-03	21.6	45	972	16.2	4285
0101-0809-10-03	28.8	45	1296	21.6	5698
0101-0410-10-03	14.4	50	720	12	3187
0101-0610-10-03	21.6	50	1080	18	4756
0101-0810-10-03	28.8	50	1440	24	6326
0101-0411-10-03	14.4	55	792	13.2	3501
0101-0611-10-03	21.6	55	1188	19.8	5227
0101-0811-10-03	28.8	55	1584	26.4	6954
0101-0412-10-03	14.4	60	864	14.4	3815
0101-0612-10-03	21.6	60	1296	21.6	5698
0102-0401-10-03	14.4	5	72	1.2	342



0102-0601-10-03	21.6	5	108	1.8	489
0102-0801-10-03	28.8	5	144	2.4	636
0102-1201-10-03	43.2	5	216	3.6	930
0102-1401-10-03	50.4	5	252	4.2	1078
0102-0402-10-03	14.4	10	144	2.4	636
0102-0602-10-03	21.6	10	216	3.6	930
0102-0802-10-03	28.8	10	288	4.8	1225
0102-1202-10-03	43.2	10	432	7.2	1813
0102-1402-10-03	50.4	10	504	8.4	2108
0102-0403-10-03	14.4	15	216	3.6	930
0102-0603-10-03	21.6	15	324	5.4	1372
0102-0803-10-03	28.8	15	432	7.2	1813
0102-1203-10-03	43.2	15	648	10.8	2696
0102-1403-10-03	50.4	15	756	12.6	3138
0102-0404-10-03	14.4	20	288	4.8	1225
0102-0604-10-03	21.6	20	432	7.2	1813
0102-0804-10-03	28.8	20	576	9.6	2402
0102-1204-10-03	43.2	20	864	14.4	3579
0102-1404-10-03	50.4	20	1008	16.8	4168
0102-0405-10-03	14.4	25	360	6	1519
0102-0605-10-03	21.6	25	540	9	2255



0102-0805-10-03	28.8	25	720	12	2990
0102-1205-10-03	43.2	25	1080	18	4462
0102-1405-10-03	50.4	25	1260	21	5198
0102-0406-10-03	14.4	30	432	7.2	1813
0102-0606-10-03	21.6	30	648	10.8	2696
0102-0806-10-03	28.8	30	864	14.4	3579
0102-1206-10-03	43.2	30	1296	21.6	5345
0102-1406-10-03	50.4	30	1512	25.2	6228
0102-0407-10-03	14.4	35	504	8.4	2108
0102-0607-10-03	21.6	35	756	12.6	3138
0102-0807-10-03	28.8	35	1008	16.8	4168
0102-1207-10-03	43.2	35	1512	25.2	6228
0102-0408-10-03	14.4	40	576	9.6	2402
0102-0608-10-03	21.6	40	864	14.4	3579
0102-0808-10-03	28.8	40	1152	19.2	4756
0102-1001-10-03	36.0	5	180	3	783
0102-1002-10-03	36.0	10	360	6	1519
0102-1003-10-03	36.0	15	540	9	2255
0102-1004-10-03	36.0	20	720	12	2990
0102-1005-10-03	36.0	25	900	15	3726
0102-1006-10-03	36.0	30	1080	18	4462



0102-1007-10-03	36.0	35	1260	21	5198
0102-1008-10-03	36.0	40	1440	24	5933
0102-0409-10-03	14.4	45	648	10.8	2696
0102-0609-10-03	21.6	45	972	16.2	4021
0102-0809-10-03	28.8	45	1296	21.6	5345
0102-0410-10-03	14.4	50	720	12	2990
0102-0610-10-03	21.6	50	1080	18	4462
0102-0810-10-03	28.8	50	1440	24	5933
0102-0411-10-03	14.4	55	792	13.2	3285
0102-0611-10-03	21.6	55	1188	19.8	4903
0102-0811-10-03	28.8	55	1584	26.4	6522
0102-0412-10-03	14.4	60	864	14.4	3579
0102-0612-10-03	21.6	60	1296	21.6	5345
0201-0401-10-03	13.6	11.05	150	1.2	448
0201-0601-10-03	20.4	11.05	225	1.8	671
0201-0801-10-03	27.2	11.05	301	2.4	895
0201-1001-10-03	34.0	11.05	376	3	1119
0201-1201-10-03	40.8	11.05	451	3.6	1342
0201-1401-10-03	47.6	11.05	526	4.2	1566
0301-0401-10-03	14.7	5.3	78	1.2	539
0301-0601-10-03	22.1	5.3	117	1.8	808



0301-0801-10-03	29.4	5.3	156	2.4	1077
0301-1001-10-03	36.8	5.3	195	3	1346
0301-1201-10-03	44.2	5.3	234	3.6	1615
0301-1401-10-03	51.5	5.3	273	4.2	1884