Safety & Governmental Affairs

September 30, 1988

Dear Distributor:

As you are well aware, the rules and regulations for manufacturing, shipping, and storing chemicals has dramatically increased over the past few years.

Hopefully, you were aware of the Code of Federal Regulations 49, as you should have a copy of it at your place of business for ready reference. This handout and the attached information is a summary of some of the more significant points and areas that affect you. Even if you do not deal with these issues on a day-to-day basis, you should have a working knowledge of proper storage, shipment, and handling of chemicals.

Hopefully, you will share this information and the importance in dealing with Department of Transportation regulations with your appropriate people.

The investment of time will certainly offer a tremendous return in these important issues of governmental adherence and proper safety.

Should you have any questions or comments, please feel free to contact me and my department.

Sincerely,

BIO-LAB, INC.

William T Donnelly /tn

William T. Donnelly
Vice President, Safety and Governmental Affairs

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Safety & Governmental Affairs

DEPARTMENT OF TRANSPORTATION

The Transportation Safety Act of 1974 authorized the establishment of the Department of Transportation (DOT). This Act was approved by the Congress of the United States and gave DOT authority to govern all safety aspects in the transportation of hazardous materials. This agency has the overall authority for domestic shipments for air, water, rail and highway shipments of hazardous materials. This includes packing, repacking, handling, labeling, marking, placarding, etc. DOT also has numerous regulations pertaining to truck drivers and the equipment used in transportation. Along with the authority given to DOT, this agency can impose penalties up to $10,000 for each violation on highway shipments; and for violations on air shipments, up to $25,000, imprisonment up to 5 years, or both. It is fairly common for DOT to cite for several violations when making inspections.

The Department of Transportation (DOT) controls the movement of hazardous materials in interstate commerce. In virtually all cases, you will be required to comply with the packaging, marking, labeling, documentation, and placarding requirements as provided in CFR 49 Parts 100 to 177. Most of the states have adopted the federal guidelines and are enforcing them.

The Code of Federal Regulations on Transporation is commonly called CFR 49. CFR Parts 49 (sections 100 to 177) is the "bible" for shipment of hazardous materials. The 1986 edition consists of 876 pages. It goes into great detail on the requirements for packing, marking, labeling and documentation for the shipment of hazardous materials.

Section 171.2 of CFR 49 on general requirements for shipping hazardous materials, states the following: No person may offer or accept a hazardous material for transportation in commerce unless that material is properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by this subchapter.

Section 173.1b of CFR 49 requires the following: It is the duty of each person who offers hazardous materials for transportation to instruct each of his officers, agents, and employees having any responsibility for preparing hazardous materials for shipment as to the applicable regulations in this subchapter (CFR 49).

In order to give you a little better understanding of DOT, I will attempt to provide you with a short course in DOT packaging, marking, labeling, driver, and placarding requirements for highway shipments

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within the United States. Requirements for air shipments and shipments by boat will vary and the intent is to cover domestic highway shipments only. In general, hazardous materials must be shipped under one of the following provisions:

1. In a DOT Specification Container as authorized in CFR 49 for that particular material.

2. As a "Limited Quantity" if authorized. A "Limited Quantity" is the maximum amount of a hazardous material for which there is a specific labeling and packaging exception. More will be covered on this later.

3. Under a DOT Exemption. DOT may issue an exemption for a packaging that is not a DOT Spec Container and does not meet the qualifications of a limited quantity. DOT can issue an exemption when a firm or individual can show that the package is safe to transport. A number is given to each exemption, such as DOT E 6824.

   DOT issues a number for a particular package and material. Packages being shipped under an exemption must be identified with DOT E followed by four numbers. For DOT E 6824, it would be required that DOT E 6824 be on the package and also on the shipping papers. Any party reshipping materials under an exemption, are generally required to have a current copy of that exemption on hand.

4. As a Consumer Commodity ORM-D. In general, these provisions permit shipments of small quantities of hazardous materials. There are certain advantages of shipping under this provision if permitted by CFR 49, including the advantages of relaxed packaging requirement (same as Limited Quantity), plus there are no shipping paper requirements. Materials shipped as a Consumer Commodity must be authorized by CFR 49.

Please turn to page 13 to review Section 172.101. This section consists of 91 pages listing the various hazardous materials and is the beginning point. A copy of one page out of this section is attached and will be used to run through one example of how to use this book and the information it provides. Sections of this table are included for calcium hypochlorite, hydrated, trichloro-s-triazinetrione, and sodium dichloro-s-triazinetrione. It might be of interest to note that column 5(a)(Exceptions) and 5(b)(Specific Requirements) are identical for all of these products and therefore the same packaging requirements apply. This is a very unusual situation and it is very important that any other chemicals be checked for requirements. A brief explanation of the columns in this table is as follows:

Column 1 - Places certain restrictions for shipments by air and water.

Column 2 - HAZARDOUS MATERIALS DESCRIPTION AND PROPER SHIPPING NAME. In our example, we can locate Calcium hypochlorite, hydrated on the page from the Hazardous Material Table in 172.201 (see page 13). Please note that in this column there is also a statement (minimum 5.5% but not more than 10% water, and containing more than 39% available chlorine) in italics. The information in italics is not required as part of proper shipping name, but may be included. Therefore, we will not include the wording in italics as part of the proper shipping name, which will be used for marking the package and also on the bill of lading.

We next have to determine if this material is a Reportable Quantity (See Page 14). On this list we find that Calcium hypochlorite, hydrated, has an RQ (reportable quantity) of 10 pounds or 454 kilo-grams. Sodium dichloro-s-triazinetrione (dichloro) and trichloro-s-triazinetrione (trichloro) do not have reportable quantities. This indicates that if you have a spill, such as an accident in transportation, that the proper authorities are to be notified and that proper clean-up of this material is required by laws currently in place.

If a package contains 10 pounds or more of this product, it is required that "RQ" be on the package and also on the shipping papers. Wrecks involving spills of 10 pounds or more of calcium hypochlorite, hydrated, that gets into the ground or water, must be reported to the National Response Center at 1-800-424-8802 for guidance and assistance.

Column 3 - HAZARD CLASS. Identifies the hazard class for the material involved, such as oxidizer, corrosive, flammable, etc.

Column 3A- IDENTIFICATION NUMBER . This is an identification number assigned to this material and readily identifies this material for emergency response teams in the event of a fire, wreck, spill, etc.

The identification number would normally be on both the package and the bill of lading. Calcium hypochlorite, hydrated has an identification number of UN 2880 and is found in column 3A.

There are several exceptions to this regulation for Limited Quantities and ORM-D materials..

Column 4 - LABEL(S) REQUIRED (IF NOT EXCEPTED). This tells us what label to use the package or container, unless there is an exception. For Calcium hypochlorite, hydrated we will use the Oxidizer label unless our package has an exception.

In general, a label is used to identify a package containing a hazardous material, unless there is an exception. If a package contains an oxidizing material, the **Oxidizer** label is used. If a package contains a corrosive, the **Corrosive** label is used, etc. Limited quantities and ORM-D materials are excepted from packaging and labeling requirements.

Column 5 - **PACKAGING.** This is broken down into 5(a) and 5(b). You should note that the packaging requirements are the same for (1) calcium hypochlorite, hydrated (2) trichloro-s-triazine--trione and (3) sodium dichloro-s-triazinetrione.

Column 5a- **EXCEPTIONS.** This will provide us with information regarding packaging, normally for small volumes of materials. Column 5(a) refers us to section 173.153. A copy of this section is attached. See Page 15. In this section there are some exceptions for limited quantities of this material. <u>The definition of "Limited Quantity" is the maximum amount of a hazardous material for which there is a specific labeling and packaging exception.</u> Normally, if an item can be packaged as a limited quantity, the shipping case does not have to meet DOT specifications and a hazard label would not be required. In general, the degree of hazard and potential risk, is much less for a small volume of a hazardous material than for a larger volume. This reasoning is used by DOT in making provisions for the exceptions.

If we elect to package calcium hypochlorite, hydrated under one of the provisions permitted in this section, we may do so. Bio Lab presently is taking advantage of this section as provided in (a)(1) which allows oxidizers in inside containers having a net weight of not over 1 pound packed in a strong outside package and not exceeding 25 pounds total net weight. By doing this, we are packing 24 one pound bags of calcium hypochlorite in a strong outside box, net weight of 24 pounds. The advantage in doing this is that an oxidizer label is not required on the box and we are not required to use a DOT Specification box.

If we use the "Limited Quantity" exception, it must be so noted on the shipping papers.

Column 5b-**SPECIFIC REQUIREMENTS.** The specific packaging requirements for calcium hypochlorite, hydrated can be found in section 173.217 (See Page [illegible]) if we select a package that does not qualify as a "limited quantity".

There are a number of choices that may be made in this section. The more common choices are:

1. Specification 21C fiber drum in (a)(3), (a)(4) and (a)(5), The Specification 35 open head polyethylene pail in (a)(7),

or

2. Specification 12B box containing polyethylene bottles as permitted in (a)(8) and (a)(9).

There is also a limited quantity provision in section (c) for calcium hypochlorite, hydrated. Limited quantities packed in plastic bottles or drums not over 10 pounds capacity each are excepted from the specification packaging and labeling requirements. It would have been more appropriate to have placed this information under the exceptions in 173.153.

There is some additional information furnished in columns 6 and column 7 for shipments of hazardous materials by air and water. Since our focus has been on highway shipments, no comments will be made.

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GENERAL MARKING REQUIREMENTS
CFR 49
SECTION 172.301

Each person who offers for transportation a hazardous substance having a rated capacity of 110 gallons or less shall mark the package with the <u>proper shipping</u> name and the <u>identification number.</u>

EXCEPTIONS: 1. The identification number is not required on packages containing limited quantities as provided for in section 172.301 (c)(1).

2. The identification number is not required on ORM-D packages for the above exclusion.

The marking requirements must be durable, in English, and printed or affixed to the package or attached label.

Packages containing ORM-D materials must be marked with ORM-D placed in a rectangle. The proper shipping name for this is Consumer Commodity. Consumer Commodity is to be placed above or below the rectangle.

Each package of hazardous material offered for transportation must be marked with the name and address of the consignee (shipper) or consignor (receiver) except when the package is:

A. Transported by highway and will not be transferred from one motor carrier to another.

B. Part of a truckload lot and the entire contents are tendered from one consignor to one consignee.

Liquid hazardous materials inside shipping cases, must be legibly marked with arrows to indicate the position of the inside containers. The shipping case must also be marked "This Side Up".

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GENERAL LABELING REQUIREMENTS
CFR 49
SECTION 172.400

Section 172.400 of CFR 49 provides us with the general labeling requirements for hazardous materials. In general it states that each person who offers a package, overpack, or freight container containing a hazardous material for transportation shall label it, when required, with labels prescribed for that material.

The label referenced in the above paragraph is the diamond shaped 4" x 4" hazard warning label to identify the contents of a package as a hazardous material such as an oxidizer, flammable, corrosive, etc.

As mentioned earlier, a label is not required on a package being shipped under the "Limited Quantity Exemption" for highway shipments.

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SHIPPING PAPER REQUIREMENTS
CFR 49
FOR DOMESTIC HIGHWAY SHIPMENTS

A copy of the shipping paper requirements as required in the October 1, 1986 publication in Section 172.201 on page 16.

Section 172.200 of CFR 49 states that each person offering a hazardous material for transportation shall describe the hazardous material on the shipping paper in the manner prescribed except of Consumer Commodities ORM A, ORM B, ORM C, and ORM D for domestic highway shipments.

Section 172.201 (Page 16) provides us with requirements for the general entries for the shipping paper. As you can see, there are several ways

in which a shipping paper can be made. We have elected to use the "HM" column as authorized in (1)(iii) of 172.201. Section 172.202 tells us what must be on the shipping paper and the order in which it must appear. The <u>shipping description of a hazardous material must be in the proper sequence and must include the following:</u>

1. THE PROPER SHIPPING NAME. This was found in column 2 of the Hazardous Material Table in section 172.101 of CFR 49.

2. THE HAZARD CLASS. This information is found in column 3 of the Hazardous Material Table.

3. THE IDENTIFICATION NUMBER. See column 4 of the Hazardous Materials Table.

4. LIMITED QUANTITY OR DOT EXEMPTION NUMBER IF APPLICABLE. If a package is being shipped as a "Limited Quantity", this must be stated on the shipping paper. If a package is being shipped under a DOT Exemption, Dot E, followed by the four numbers assigned to that exemption, must be on the shipping paper.

5. ADDITIONAL REQUIREMENTS. There are some additional requirements for the following shipping paper requirements. (1) A signed certification must be on the shipping paper, certifying that the materials are properly classed, described, etc. for shipment and (2) The total quantity of the material in pounds or gallons be shown on the shipping papers.

   A sample of a Bio-Lab bill of lading is attached. See page 17.

   With this brief background, let's see if we can now come up with a correct bill of lading description for calcium hypochlorite, hydrated. From the Hazardous Material Table (Page 12) we obtain the following information:

   PROPER SHIPPING NAME: Calcium hypochlorite, hydrated

   HAZARD CLASS: Oxidizer

   IDENTIFICATION NUMBER: UN2880

With this information, we can now prepare a proper bill of lading description for Calcium hypochlorite, hydrated.

EXAMPLE # 1. Packaging will be a DOT specification 21C Fiber Drum as authorized in CFR 49, Section 173.217, containing 400 pounds of calcium hypochlorite, hydrated. Note that this is a "RQ" (See Page 13). The correct description for this example is as follows:

Calcium hypochlorite, hydrated, Oxidizer, UN2880, RQ

Note: RQ may be placed in the "HM" column of the shipping papers. If this method is used, RQ may be deleted from the above description.

EXAMPLE # 2. In this example, we want to put one pound of calcium hypochlorite, hydrated, in a container and place 24 of these containers in a fiber box. Again, if we look at the Hazardous Material table (page 12), it will refer us to section 173.153 for exceptions for limited quantities. 173.153 (b)(1) permits packaging of this product in containers of 1 pound or less of this material and packing in a strong outside box. Net weight not to exceed 25 pounds. This also is a reportable quantity (See Page 14) since the net contents is greater than 10 pounds and "RQ" must be included in the description. In this case the description to be used on the shipping paper would be as follows:

Calcium hypochlorite, hydrated, Oxidizer, UN2880, Limited Quantity, RQ

EXAMPLE # 3. Suppose we elected to put 12 pounds of Calcium hypochlorite, hydrated in a unique polyethylene bottle, and want to place 4 of these in an outside shipping case. Under these conditions, we cannot use the "Limited Quantity" exception and there are no DOT Specification containers that would cover this situation. At this point, DOT would be requested to grant an Exemption to authorize the shipment of materials under this exemption. Dot has granted Bio Lab such an exemption for this package. It is identified as DOT E 6824. DOT E 6824 must be on both the package and shipping papers. Again, we have a "reportable quantity". The correct bill of lading for this example would be as follows:

Calcium hypochlorite, hydrated, oxidizer, UN 2880, DOT E 6884, RQ

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PLACARDING

Attached is a Hazardous Materials Placarding Chart (See Last Page) that will provide you with the general guidelines for placarding. Our products that are classified as hazardous materials will fall in the categories of oxidizer, corrosive, flammable, and combustible.

Each person offering a motor carrier a hazardous material for transportation by highway shall provide the motor carrier the required placard. If a placard is not required for the material being shipped,

it is not mandatory to furnish a placard to the carrier. It is advisable to have a place on the shipping paper stating that placards were offered and have this signed by the party picking up the material. This will provide you with some protection if this vehicle is checked after leaving your premise. See copy of Bio-Lab bill of lading on page 17.

In general, placards are required when transporting 1,000 pounds or more of the hazardous materials classified as oxidizers, corrosive, and flammable. There are some more stringent placarding requirements for radioactive materials, explosives, poisons etc., but for our products, placarding is required for 1,000 pounds or more of hazardous materials. Please note that there is no placarding requirements for combustible liquids when packed in 110 gallon container or less. It is also a requirement that placards be placed on the front, rear and both sides of the vehicle.

We will use several examples to illustrate the placarding requirements:

EXAMPLE # 1. We have 1200 pounds of an oxidizer loaded on a delivery vehicle. It is required that an oxidizer placard be placed on the front, rear, and both sides of the vehicle. These placards can remain in place as long as there is any amount of oxidizer on the vehicle. However, all placards must be removed when all of the oxidizing materials have been removed from the vehicle.

EXAMPLE # 2. A customer comes in for a pick-up of 1000 pounds of an oxidizer and also wants 300 pounds of flammable liquids. Here there are several options.

Option # 1 Can furnish 4 placards for the oxidizers and 4 placards for the flammable liquids.

Option # 2: Can supply only 4 dangerous placards. Note information on the attached placarding chart under the dangerous placard information. This allows the use of the dangerous placard to cover two or more hazard classes provided 5,000 pounds or more of one material is not loaded at one loading facility.

Caution: This could be a problem if you have more than one stop.

EXAMPLE # 3. We need to place 400 pounds of oxidizer and 300 pounds of corrosive on a delivery vehicle. Since the aggregate gross weight is less than 1,000 pounds, we are not required to placard. However, DOT does require that these materials not be stored adjacent to or above or below each other.

EXAMPLE # 4. Our delivery vehicle is loaded at our facility with 5,000 pounds of oxidizers, 200 pounds of corrosives and 300 pounds of flammable liquids. How do we placard?

1. The oxidizer placards are required since 5,000 pounds of materials was picked up at one facility (see dangerous).

   Plus

2. We can either use (1) the dangerous placards or (2) apply flammable and a corrosive placards.

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DOT DRIVER QUALIFICATION & DRIVER FILE REQUIREMENTS (LOCAL DRIVERS)

Listed below are the main requirements of the Federal Motor Carrier Safety Regulations, parts 383, 390-399, as needed for local drivers. Any driver operating within a 100 air mile radius is considered as a local driver and is exempt from the log requirements of DOT. Copies of this book, driver files, certifications, etc., can be obtained from the American Trucking Association, 2200 Mill Road, Alexandria, Va. 22314. Telephone 1-800-ATA-LINE.

DRIVER REQUIREMENTS (Local)

1. Driver must be at least 21 years of age. (391.11)
2. Must be able to read and write English.
3. Must have a current valid commercial motor vehicle License.
4. Must pass a physical and be issued a certificate of the physical examination. Repeat every 2 years.
5. Driver must furnish a complete list of violations.
6. Driver must have successfully completed a road test and issued a certificate as required in 391.31.
7. Must take a written exam and issued certificate as required in 391.35.
8. Application for employment to be completed as detailed in 391.21. Special Application is needed to comply with this section.
9. Inquiry required in every state that the driver was issued an operator's license for the previous 3 years. MVR check required within 30 days of employment.
10. Investigation of the driver's employment record for the previous 3 years. Written record is required by 391.23.

The items listed above are <u>required</u> when hiring a driver for commercial use, and these records should be maintained in the driver's file. In addition, the following are required after a driver is employed:

1. Annual reviews of driving records.
2. Training of DOT regulations.
3. Periodic MVR checks.
4. Maintain daily vehicle condition reports.
5. Issue copy of Federal Motor Carrier Safety

   Regulations, parts 383, 390-399. Receipt to be filled out and placed in driver file. Driver is to read and become familiar with the rules and regulations.

The above is a summary of the main requirements for local drivers and is by no means complete. Additional information can be found in the Federal Motor Carrier Safety Regulations, Parts 383, 390-399.

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DOT REQUIREMENTS / LIGHTWEIGHT VEHICLE DRIVERS

Section 391.62 of the Federal Motor Carrier Safety Regulations has an exception for driver's of lightweight vehicles.

"Lightweight vehicle" is a motor vehicle that was manufactured after Jan. 1, 1972 and has a manufacturers gross vehicle weight rating of 10,000 pounds or less. Most pick-ups and autos fall in this category.

NOTE: If a vehicle is being used to transport hazardous materials of a quantity that requires placarding (1,000 pounds for oxidizers and corrosive liquids), this exclusion cannot be used.

If the lightweight exclusion is applicable, it eliminates much of the regulatory requirements as required for other drivers, including the following:

1. Drivers can be 18 years old or older.
2. Exempt for maintaining a driver qualification file.
3. Eliminates the need for a "driver application" form.
4. Eliminates required checks with former employers.
5. Motor Vehicle Drivers license check not required.
6. Annual review of violations not required.
7. Road Tests and Written Tests are not required.
8. Medical exam and medical certificate are not required.
9. Emergency equipment is not required.
10. Exempt from driver's hours of service.
11. Eliminates driver's log requirements.
12. Daily vehicle inspection reports are not required.

If you have a lightweight vehicle and meet <u>all</u> of the above requirements, it would seem reasonable to take advantage of this exclusion.

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Hopefully, this information will provide you with a little better understanding of some of the rules and regulations of the Department of Transportation and how these apply to us.

Shipments as you receive them from Bio-Lab and most suppliers are packaged in accordance with DOT regulations. Anytime you break open a case and reship a partial case quantity by UPS or another carrier, it is mandatory that this be done in compliance with CFR 49, including the proper marking, labeling, packaging, shipping paper descriptions, etc.

United Parcel Service (UPS) has requirements above those required by DOT in many cases, and may refuse to handle a package authorized by DOT. Roadway Package System (RPS), a firm competing against UPS that is expanding, and eventually plans on covering the entire U.S., will transport any DOT approved package. RPS has a toll free number if you want to contact them regarding service in your area. The number is 1-800-ROADPAK.

These regulations are applicable to all commercial accounts in that the packaging needs to conform to these regulations, a correct bill of lading should be furnished, etc. Hazardous chemicals that you sell to your retail stores, service accounts, etc. should be in conformance with these regulations. However, this requirement is not applicable for a direct sale to a homeowner.

This information is being furnished to assist you in a very basic understanding of some of the rules and regulations of the requirements of the Department of Transportation for the transportation of hazardous materials. It is by no means complete. It is our interpretation and to the best of our knowledge. We make no claims, guarantees or warranties as to the completeness of this information. Additional information can be obtained from The Federal Highway Office of Motor Carrier Safety in your region. I would recommend that you obtain a copy of CFR 49 Parts 100 to 177, for the complete requirements, and become more familiar with these regulations. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. (telephone 202-783-3238).

We appreciate your business and look forward to serving you in the future.

Bio-Lab, Inc.
Aug. 1988

File DOT2a

§172.101 Hazardous Materials Table

(1)	(2)	(3)	(3A)	(4)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
					(a)	(b)	(a)	(b)	(a)	(b)	(c)
→ / A / W	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Exceptions	Specific requirements	Passenger carrying aircraft or railcar	Cargo only aircraft	Cargo vessel	Passenger vessel	Other requirements
	Calcium hypochlorite, hydrated (*minimum 5.5% but not more than 10% water, and containing more than 39% available chlorine*)	Oxidizer	UN2880	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	
	Calcium hypochlorite mixture, *dry (Containing more than 39% available chlorine)*	Oxidizer	UN1748	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	Keep cool and dry
	Cement	Combustible Liquid	NA1133	None	173.118a	None	No limit	No limit	1.2	1.2	
	Cement	Flammable liquid	NA1133	Flammable liquid	173.118	173.132	1 quart	10 gallons	1.2	1	
	Cement, adhesive, n.o.s. *See* Cement	Flammable liquid	NA1133	Flammable liquid	173.118	173.132	1 quart	15 gallons	1.2	1	
	Cement, container, linoleum, tile, *or* wallboard, liquid	Flammable liquid	NA1133	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Cement, leather										
	Oxidizer, n.o.s. *or* Oxidizing material, n.o.s.	Oxidizer	UN1479	Oxidizer	173.153	173.154	25 pounds	25 pounds	1.2	1.2	
	Oxidizer, poisonous, liquid, n.o.s.	Oxidizer	NA9199	Oxidizer and Poison	None	173.154	Forbidden	1 quart	1	5	
	Oxidizer, poisonous, solid, n.o.s.	Oxidizer	NA9200	Oxidizer and Poison	173.153	173.154	25 pounds	25 pounds	1.3	4	
	Oxygen *or* Oxygen, compressed	Nonflammable gas	UN1072	Oxidizer	173.306	173.302 173.314	150 pounds	300 pounds	1.2	1.2	Under deck stowage must be in well ventilated space
	Oxygen, refrigerated liquid (*cryogenic liquid*)	Nonflammable gas	UN1073	Oxidizer	173.320	173.316 173.318	Forbidden	Forbidden	1	1	Stow separate from flammables. Do not over-stow with other cargo
	Paint	Combustible liquid	UN1263	None	173.118a	None	No limit	No limit	1.2	1.2	
	Paint	Flammable liquid	UN1263	Flammable liquid	173.118	173.128	1 quart	55 gallons	1.2	1	
	Paint *or* paint related material	Corrosive material	NA1760	Corrosive	173.244	173.245	1 quart	1 gallon	1.2	1.2	
	Paint related material	Combustible liquid	NA1263	None	173.118a	None	No limit	No limit	1.2	1.2	
	Paint related material	Flammable liquid	NA1263	Flammable liquid	173.118 173.128	173.128	1 quart	55 gallons	1.2	1	
	Sodium dichlorobenzenesulfonate. *See* Sodium dichloro-s-triazinetrione										
	Sodium dichloro-s-triazinetrione (*dry, containing more than 39% available chlorine*)	Oxidizer	UN2465	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	
A	Sodium dichromate	ORM-A	NA1478	None	173.506	173.510	No limit	No limit	1.2	1.2	
	Sodium dodecylbenzenesulfonate		NA9148	None	None	173.510	No limit	No limit	1.2	1.2	
A	Sodium fluoride, solid	ORM-B	UN1690	None	173.506	173.510	No limit	No limit	1.2	1.2	
	Sodium fluoride solution	Corrosive material	UN1690	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	Stow away from acids
	Sodium hydrate. *See* Sodium hydroxide										
	Sodium hydride	Flammable solid	UN1427	Flammable solid and Dangerous when wet	None	173.198	Forbidden	25 pounds	1.2	5	Segregation same as for flammable solids labeled Dangerous When Wet
A	Sodium hydrogen sulfate, solid	ORM-B	UN1821	None	173.506	173.800	25 pounds	100 pounds			
	Sodium hydrogen sulfate solution	Corrosive material	UN2837	Corrosive	173.244	173.245	1 quart	1 gallon	1.2	1.2	
A	Sodium hydrogen sulfite, solid	ORM-B	NA2693	None	173.506	173.800	25 pounds	100 pounds	1.2	1.2	
	Sodium hydrogen sulfite, solution	Corrosive material	NA2693	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	
	Sodium hydrosulfide, solid (*with less than 25% water of crystallization*)	Flammable solid	UN2318	Flammable solid	173.153	173.154	25 pounds	100 pounds	1.2	1.2	
	Sodium hydrosulfide, solid (*with not less than 25% water of crystallization*)	Corrosive material	NA2923	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1.2	
	Sodium hydrosulfide, solution	Corrosive material	NA2922	Corrosive	173.244	173.245	1 quart	5 gallons	1.2	1.2	
	Tractor. *See* Motor vehicle										
	Trailer or truck body with refrigeration or heating equipment. *See* Motor vehicle										
	Triazine pesticide, liquid, n.o.s. (*compounds and preparations*)	Flammable liquid	UN2764	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Triazine pesticide, liquid, n.o.s. (*compounds and preparations*), liquid	Poison B	UN2763	Poison	173.345	173.346	1 quart	55 gallons	1.2	1.2	
	Triazine pesticide, solid, n.o.s. (*compounds and preparations*)	Poison B	UN2763	Poison	173.364	173.365	50 pounds	200 pounds	1.2	1.2	
	Trichlornitromethylammonium nitrate	Forbidden									
A	Trichloron	ORM-A	NA2783	None	173.506	173.510	50 pounds	200 pounds	1.2	1.2	
	Trichloroacetic acid, solid	Corrosive material	UN1839	Corrosive	173.244	173.245b	25 pounds	100 pounds	1.2	1	
	Trichloroacetic acid solution	Corrosive material	UN2564	Corrosive	173.244	173.245	1 quart	1 quart	1.2	1.2	Glass carboys in numbers not permitted under deck
A	1,1,1-Trichloroethane	ORM-A	UN2831	None	173.506	173.606	10 gallons	55 gallons			
A	Trichloroethylene	ORM-A	UN1710	None	173.506	173.606	10 gallons	55 gallons	1.2	1.2	
	Trichloroisocyanuric acid, dry	Oxidizer	UN2468	Oxidizer	173.153	173.217	10 pounds	50 pounds	1.2	1.2	Shade from radiant heat. Keep dry. Stow separate from nitrogen compounds
	Trichloromethyl perchlorate	Forbidden									
A	Trichlorophenol	ORM-A	NA2020	None	173.506	173.510	100 pounds	No limit	1.2	1.2	
A	2,4,5-Trichlorophenoxyacetic acid	ORM-A	NA2765	None	173.506	173.510	50 pounds	No limit	1.2	1.2	
	2,4,5-Trichlorophenoxyacetic acid amine, ester, *or* salt		NA2765	None	None	173.510	No limit	No limit	1.2	1.2	
A	2,4,5-Trichlorophenoxypropionic acid	ORM-A	NA2765	None	173.506	173.510	50 pounds	No limit	1.2	1.2	
	2,4,5-Trichlorophenoxypropionic acid ester		NA2765	None	None	173.510	No limit	No limit	1.2	1.2	
	Trichloroisuane	Flammable liquid	UN1295	Flammable liquid	None	173.138	Forbidden	10 gallons	1	5	Segregation same as for flammable solids labeled Dangerous When Wet
	Trichloro-s-triazinetrione dry, *containing over 39% available chlorine*	Oxidizer	NA2468	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.2	1.2	Shade from radiant heat. Keep dry. Stow separated from nitrogen compounds
	(mono-(Trichloro) tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry (*containing over 39% available chlorine*)	Oxidizer	NA2468	Oxidizer	173.153	173.217	50 pounds	100 pounds	1.3	1.3	Keep dry
	Trick matches	Class C explosive		Explosive C	None	173.111	Forbidden	Forbidden	1.3	1.3	
	Trick noise maker, explosive	Class C explosive		Explosive C	None	173.111	50 pounds	150 pounds	1.3	1.3	
	Triethanolamine dodecylbenzenesulfonate		NA9151	None	None	173.510	No limit	No limit	1.2	1.2	
	Triethylamine	Flammable liquid	UN1296	Flammable liquid	173.118	173.119	1 quart	10 gallons	1.2	1	
	Trifluorochloromethylene	Flammable gas	UN1082	Flammable gas	173.306	173.302 173.314	Forbidden	10 gallons	1.2	1	

LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES—Continued

Hazardous Substance	Synonyms	Reportable Quantity (RQ) Pounds (Kilograms)
Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene-	Chlorambucil	1 (0.454)
1-Butanol	n-Butyl alcohol *	5000 (2270)
2-Butanone	Ethyl methyl ketone @	5000 (2270)
	Methyl ethyl ketone *	
2-Butanone peroxide	Methyl ethyl ketone peroxide *	10 (4.54)
2-Butenal	Crotonaldehyde *	100 (45.4)
2-Butene, 1,4-dichloro-	1,4-Dichloro-2-butene	1 (0.454)
Butyl acetate *		5000 (2270)
iso-Butyl acetate		
sec-Butyl acetate		
tert-Butyl acetate		
n-Butyl alcohol *	1-Butanol	5000 (2270)
Butylamine *		1000 (454)
iso-Butylamine		
sec-Butylamine		
tert-Butylamine		
Butyl benzyl phthalate		100 (45.4)
n-Butyl phthalate	Di-n-butyl phthalate	10 (4.54)
	Dibutyl phthalate	
	1,2-Benzenedicarboxylic acid, dibutyl ester	5000 (2270)
Butyric acid *		
iso-Butyric acid	Hydroxydimethylarsine oxide	1 (0.454)
Cacodylic acid		1 (0.454)
Cadmium *		100 (45.4)
Cadmium acetate		100 (45.4)
Cadmium bromide		100 (45.4)
Cadmium chloride		1000 (454)
Calcium arsenate *		1000 (454)
Calcium arsenite *		10 (4.54)
Calcium carbide *		1000 (454)
Calcium chromate	Chromic acid, calcium salt	10 (4.54)
Calcium cyanide *		1000 (454)
Calcium dodecylbenzene sulfonate		10 (4.54)
Calcium hypochlorite *		10 (4.54)
Camphene, octachloro-	Toxaphene	10 (4.54)
Captan		1 (0.454)
Carbamic acid, ethyl ester	Ethyl carbamate (Urethan)	1 (0.454)
Carbamic acid, methylnitroso-, ethyl ester	N-Nitroso-N-methylurethane	1 (0.454)
Carbamide, N-ethyl-N-nitroso-	N-Nitroso-N-ethylurea	1 (0.454)
Carbamide, N-methyl-N-nitroso-	N-Nitroso-N-methylurea	1 (0.454)
Carbamide, thio-	Thiourea	1 (0.454)
Carbamimidoselenoic acid	Selenourea	1000 (454)

Hazardous Substance	Synonyms	Reportable Quantity (RQ) Pounds (Kilograms)
Carbamoyl chloride, dimethyl-	Dimethylcarbamoyl chloride	1 (0.454)
Carbaryl *		100 (45.4)
Carbofuran *		10 (4.54)
Carbon bisulfide *	Carbon disulfide *	100 (45.4)
Carbon disulfide *	Carbon bisulfide *	100 (45.4)
Carbonic acid, dithallium (I) salt	Thallium(I) carbonate	100(45.4)
Carbonochloridic acid, methyl ester	Methyl chlorocarbonate *	1000 (454)
	Methyl chloroformate @	
Carbon oxyfluoride	Carbonyl fluoride	1000 (454)
Carbon tetrachloride *	Methane, tetrachloro-	5000 (2270)
Carbonyl chloride	Phosgene *	10 (4.54)
Carbonyl fluoride	Carbon oxyfluoride	1000 (454)
Chloral	Acetaldehyde, trichloro-	1 (0.454)
Chlorambucil	Butanoic acid, 4-[bis(2-chloroethyl)amino]benzene-	1 (0.454)
Chlordane *	Chlordane, technical *	1 (0.454)
	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-	
Chlordane, technical *	Chlordane *	1 (0.454)
	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-	
Chlorine *		10 (4.54)
Chlorine cyanide	Cyanogen chloride *	10 (4.54)
Chlornaphazine	2-Naphthylamine, N,N-bis(2-chloroethyl)-	10 (4.54)
Chloroacetaldehyde	Acetaldehyde, chloro-	1000 (454)
p-Chloroaniline	Benzenamine, 4-chloro-	1000 (454)
Chlorobenzene *	Benzene, chloro-	100 (45.4)
4-Chloro-m-cresol	p-Chloro-m-cresol	5000 (2270)
	Phenol, 4-chloro-3-methyl-	
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	5000 (2270)
	4-Chloro-m-cresol	
Chlorodibromomethane		100 (45.4)
1-Chloro-2,3-epoxypropane	Epichlorohydrin *	1000 (454)
	Oxirane, 2-(chloromethyl)-	
Chloroethane	Ethyl chloride @	100 (45.4)
2-Chloroethyl vinyl ether	Ethene, 2-chloroethoxy-	1000 (454)
Chloroform *	Methane, trichloro-	5000 (2270)
Chloromethane	Methane, chloro-	1 (0.454)
	Methyl chloride *	
Chloromethyl methyl ether	Methane, chloromethoxy-	1 (0.454)
	Methylchloromethyl ether @	
beta-Chloronaphthalene	Naphthalene, 2-chloro-	5000 (2270)
	2-Chloronaphthalene	
2-Chloronaphthalene	beta-Chloronaphthalene	5000 (2270)
	Naphthalene, 2-chloro-	
2-Chlorophenol	o-Chlorophenol	100 (45.4)
	Phenol, 2-chloro-	
o-Chlorophenol	Phenol, 2-chloro-	100 (45.4)
	2-Chlorophenol	
4-Chlorophenyl phenyl ether		5000 (2270)
1-(o-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	100 (45.4)

§ 173.153 Limited quantities of flammable solids, oxidizers and organic peroxides.

(a) Limited quantities of flammable solids for which exceptions are permitted as noted by reference to this section in § 172.101 of this subchapter, are excepted from labeling (except when offered for transportation by air) and specification packaging requirements when packed according to the following paragraph. In addition, shipments are not subject to Subpart F of Part 172 of this subchapter, to Part 174 of this subchapter except § 174.24 and to Part 177 of this subchapter except § 177.817.

(1) Flammable solids in inside containers not over 1 pound net weight each, in outside containers not exceeding 25 pounds net weight each.

(b) Limited quantities of oxidizers and organic peroxides for which exceptions are permitted as noted by reference to this section in § 172.101 of this subchapter are excepted from labeling (except when offered for transportation by air) and specification packaging requirements when packed according to the following paragraphs. In addition, shipments are not subject to Subpart F of Part 172 of this subchapter, to Part 174 of this subchapter except § 174.24 and to Part 177 of this subchapter except § 177.817.

(1) Oxidizers in inside containers having a rated capacity of not over one pint for liquids or a net weight of not over one pound for solids, in strong outside packagings not exceeding 25 pounds net weight each.

(2) Organic peroxides, except acetyl benzoyl peroxide and benzoyl peroxide, as follows:

(i) In inside containers which must be securely packed and cushioned with noncombustible cushioning material (except that cushioning material is not required when the liquid is contained in strong, securely closed plastic packagings of not over 1 ounce by volume capacity each), further overpacked in strong outside packagings containing not over 1 pint or 1 pound net weight of the material.

(ii) In not more than 24 inside fiberboard containers each having not more than 70 securely closed tubes having a maximum fluid capacity of each of 1/6-ounce and securely packed in noncombustible cushioning material.

(c) Special exceptions for shipment of certain flammable solids, oxidizers and organic peroxides in the ORM-D Class are provided in Subpart N of this part.

§173.217 Calcium hypochlorite, hydrated, Calcium hypochlorite mixture, dry; lithium hypochlorite mixture, dry; mono-(trichloro)-tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry; potassium dichloro-s-triazinetrione, dry; sodium dichloro-s-triazinetrione, dry; trichloro-s-triazinetrione, dry.

(a) Calcium hypochlorite, hydrated, Calcium hypochlorite mixture, dry, lithium hypochlorite mixture, dry, mono (trichloro) tetra-(monopotassium dichloro)-penta-s triazinetrione, dry, potassium dichloro-s-triazinetrione, dry, sodium dichloro-s-triazinetrione dry, and trichloro-s-triazinetrione, dry, each containing more than 39 percent available chlorine must be packaged as follows:

(1) Spec. 6B, or 6C (§§178.98, or 178.99 of this subchapter). Metal barrels or drums.

[45 FR 59891, September 11, 1980, effective immediately]

(2) Spec. 17E, 17H, 37A, or 37B (§§ 178.116, 178.118, 178.131, or § 178.132 of this subchapter). Metal drums (single-trip).

(3) Specification 21C (§178.224 of this subchapter). Fiber drums with inner ply consisting of a laminated sheet of paper and aluminum foil, internally coated. Cover of drum must be gasketed. Authorized net weight not over 400 pounds.

(4) Specification 21C (§ 178.224 of this subchapter). Fiber drum with commodity packed in securely closed polyethylene bag constructed of polyethylene film not less than 0.004-inch thickness. Not authorized for calcium hypochlorite mixtures and lithium hypochlorite compounds, dry.

(5) Specification 21C (§ 178.224 of this subchapter). Fiber drum must be made with integral inner body ply having 0.003-inch minimum thickness aluminum facing and bottom inner ply having 0.001-inch minimum thickness aluminum facing. Cover of drum must be gasketed. Authorized net weight not over 400 pounds. Authorized only for dry calcium hypochlorite mixtures.

(6) Specification 56 (§§178.251, 178.252 of this subchapter). Metal portable tank. Authorized only for calcium hypochlorite, hydrated; mono-(trichloro) tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry, potassium dichloro-s-triazinetrione, dry; sodium dichloro-s-triazinetrione, dry; and trichloro-s-triazinetrione, dry. For rail transportation, see §174.63(b) of this subchapter.

(7) Specification 35 (§ 178.16 of this subchapter) non-reusable, removable head polyethylene drum for use without overpack and not over seven gallons capacity.

(8) Specification 12B (§178.205 of this subchapter). Fiberboard boxes with inside polyethylene bottles with a minimum wall thickness of 0.015 inch. Not more than 2 polyethylene bottles may be packed in one box and each bottle must not contain more than 20 pounds net weight of the material. Packaging must be such that it will not react dangerously with or be decomposed by the commodity.

(9) Specification 12B (§ 178.205 of this subchapter). Fiberboard box with not more than two inside minimum 30-gauge thick steel pails containing not over 26 pounds net weight each. Each cover must be gasketed.

(b) As prescribed in §173.163(a)(7). Authorized only for calcium hypochlorite hydrated.

(c) Limited quantities of these material in strong outside wooden or fiberboard packages with inside packagings of glass not over 5 pounds capacity each, or with inside metal packagings or plastic bottles or drums not over 10 pounds capacity each, are excepted from labeling (except labeling is required for transportation by air) and the specification packaging requirements of this subchapter. In addition, shipments are not subject to subpart F of part 172 of this subchapter, to part 174 of this subchapter except §174.24 and to part 177 of this subchapter except §177.817.

§ 172.200 Applicability.

(a) *Description of hazardous materials required.* Except as otherwise provided in this subpart, each person who offers a hazardous material for transportation shall describe the hazardous material on the shipping paper in the manner required by this subpart.

(b) This subpart does not apply to any material other than a hazardous waste or a hazardous substance, that is:

(1) An ORM-A, B, or C, unless it is offered or intended for transportation by air when it is subject to the regulations pertaining to transportation by air as specified in § 172.101; or

(2) An ORM-A, B, or C, unless it is offered or intended for transportation by water when it is subject to the regulations pertaining to transportation by water as specified in § 172.101; or

(3) An ORM-D unless it is offered or intended for transportation by air.

[Amdt. 172-29A, 41 FR 40677, Sept. 20, 1976, as amended by Amdt. 172-58, 45 FR 34697, May 22, 1980; Amdt. 172-74, 47 FR 43065, Sept. 30, 1982]

§ 172.201 General entries.

(a) *Contents.* When a description of hazardous material is required to be included on a shipping paper, that description must conform to the following requirements:

(1) When a hazardous material and a material not subject to the requirements of this subchapter are described on the same shipping paper, the hazardous material description entries required by § 172.202 and those additional entries that may be required by § 172.203:

(i) Must be entered first, or

(ii) Must be entered in a color that clearly contrasts with any description on the shipping paper of a material not subject to the requirements of this subchapter, except that a description on a reproduction of a shipping paper may be highlighted, rather than printed, in a contrasting color (the provisions of this paragraph apply only to the basic description required by § 172.202(a) (1) and (2), and (3)), or

(iii) Must be identified by the entry of an "X" placed before the proper shipping name in a column captioned "HM." (The "X" may be replaced by "RQ," if appropriate.)

(2) The required shipping description on a shipping paper and all copies thereof used for transportation purposes, must be legible and printed (manually or mechanically) in English.

(3) Unless it is specifically authorized or required in this subpart, the required shipping description may not contain any code or abbreviation.

(4) A shipping paper may contain additional information concerning the material provided the information is not inconsistent with the required description. Unless otherwise permitted or required by this subpart, additional information must be placed after the basic description required by § 172.202(a).

(i) When appropriate, the entries "IMO" or "IMO Class" may be entered immediately before or immediately following the class entry in the basic description.

(ii) For a material meeting the definition of more than one hazard class, the additional hazard class or classes may be entered after the hazard class in the basic description.

(b) *Name of shipper.* A shipping paper for a shipment by water must contain the name of the shipper.

(c) *Continuation page.* A shipping paper may consist of more than one page, if each page is consecutively numbered and the first page bears a notation specifying the total number of pages included in the shipping paper. For example, "Page 1 of 4 pages."

§ 172.202 Description of hazardous material on shipping papers.

(a) The shipping description of a hazardous material on the shipping paper must include:

(1) The proper shipping name prescribed for the material in § 172.101 or § 172.102 (when authorized);

(2) The hazard class prescribed for the material in the same section. Except for a proper shipping name that contains words describing more than one hazard class, inclusion of the hazard class is not required when the words of the proper shipping name contain the key word or words of the hazard class of the material, such as Flammable liquid; Poison B, liquid; Radioactive device; or Corrosive liquid;

(3) The identification number (preceded by "UN" or "NA" as appropriate) prescribed for the material in the same section; and

(4) Except for empty packagings, cylinders for compressed gases, and packagings of greater than 110 gallons capacity, the total quantity by weight (net or gross as appropriate) or volume, including the unit of measure, of the hazardous material covered by the description. For example: "800 lbs", "55 gal".

(b) Except as provided in this subpart, the basic description specified in paragraphs (a) (1), (2) and (3) of this section must be shown in sequence. For example: "Gasoline, Flammable liquid, UN1203".

(c) The total quantity of the material covered by one description must appear before or after, or both before and after, the description required and authorized by this subpart.

(1) Abbreviations may be used to specify the type of packaging and unit of measurement for total quantity. For example: "10 ctns, Paint, Flammable liquid, UN1263, 500 lbs".

(2) The type of packaging and destination marks may be entered in any appropriate manner before or after the basic description.

(d) Technical and chemical group names may be entered in parentheses between the proper shipping name and hazard class.

(e) Except for those materials in the UN Recommendations, the ICAO Technical Instructions, or the IMDG Code, a material that is not a hazardous material according to this subchapter may not be offered for transportation or transported when its description on a shipping paper includes a hazard class or an identification number specified in § 172.101.

§ 172.203 Additional description requirements.

(a) *Exemptions.* Each shipping paper issued in connection with a shipment made under an exemption must bear the notation "DOT-E" followed by the exemption number assigned and so located that the notation is clearly associated with the description to which the exemption applies.

(b) *Limited quantities.* The description for a material offered for transportation as "limited quantity," as authorized by this subchapter, must include the words "Limited Quantity" or "Ltd Qty" following the basic description.

PAGE # 1 OF 2

SHORT FORM-ORIGINAL
NON-NEGOTIABLE

FROM
BIO LAB, INC
1700 OLD COVINGTON HIGHWAY
CONYERS GA 30207

CONSIGNEE

DESTINATION

CUST. ORDER

SHIP VIA	DATE SHIPPED	COUNTY		AT	DAT.
PELCO Horizon-2541	03-16-88		PREPAID	CONYERS	GA

THIS IS TO CERTIFY THAT THE ABOVE-NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION

SIGNATURE [signature]

CAR OR VEHICLE NUMBER INITIALS

PREPAID | COLLECT | CHARGES ADVANCED

IF CHARGES ARE TO BE PREPAID WRITE OR STAMP HERE "TO BE PREPAID"

RECEIVED: To apply in prepayment of the charges the property described hereon.

Per _____ Agent Cash
(The signature here acknowledges)

Subject to Section 7 of Conditions of applicable bill of Lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of consignor)

RECEIVED, subject to the classifications and Lawfully Filed tariffs in effect on the date issue of this Bill of Lading

MAIL OR STREET ADDRESS OF CONSIGNEE FOR PURPOSES OF NOTIFICATION ONLY.

NO. CTRS.	HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES, SPECIAL MARKS, AND EXCEPTIONS	WEIGHT (Subject to Correction) TOTAL QUANTITY (LBS.)	CLASS OR RATE
53		COMPOUNDS, SWIMMING POOL, CLEANING OR WATER TREATING, DRY OR LIQUID ITEM 50312 [01]	1744# #	065
21	X	TRICHLOROISOCYANURIC ACID, DRY, OXIDIZER, UN 2468, LTD. QTY., (COMPOUNDS, SWIMMING POOL, NMFC 50312) [14]	716# #	065
5	X	TRICHLOROISOCYANURIC ACID, DRY, OXIDIZER, UN 2468, DOT E - 6267 (COMPOUNDS, SWIMMING POOL, NMFC 50312) [10]	222# #	065
15	X	TRICHLOROISOCYANURIC ACID, DRY, OXIDIZER, UN 2468 (COMPOUNDS, SWIMMING POOL, ITEM 50312) [08]	797# #	065
20	X	CALCIUM HYPOCHLORITE, HYDRATED, OXIDIZER, UN 2880, RQ, LTD. QTY. (NMFC 44980 SUB 1) [66]	525# #	060
10		DISINFECTANTS OR DEODORANTS, NOI, IN BULK, ITEM 57100 SUB 3 [39]	289# #	060
3	X	SODIUM DICHLORO-S-TRIAZINETRIONE, OXIDIZER, UN 2465, LTD. QTY., (COMPOUNDS, SWIMMING POOL, NMFC 50312) [02]	56# #	065
5	X	COMPOUND, CLEANING, LIQUID (CONTAINING HYDROCHLORIC (MURIATIC ACID), CORROSIVE MATERIAL, NA 1789, (NMFC 48580 SUB 3) [80]	154# #	055
30		SODIUM BICARBONATE, ITEM 46220, SUB 1 [22]	1358#	060
2		SODIUM CARBONATE, ITEM 46220, SUB 1 [23]	33#	060
5		COMPOUNDS, CHELATING - ITEM 50125 [25]	160#	055
1		CIRCULARS, BOOKS, BOOKLETS, LEAFLETS, PAMPHLETS, SHEETS OR PRICE LISTS - ITEM 4860, SUB 2 [37]	2# #	077
2		COMPOUNDS, DEFOAMING, IN BOXES OR PAILS, ITEM 50140, SUB 2 [28]	45# #	070

FOR CHEMICAL EMERGENCY-SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT: CALL: CHEMTREC-DAY OR NIGHT: 800-424-9300

OFFERED CARRIER PLACARDS (SHIPMENT 1000 lbs. or more)

☑ Oxidizer ☑ Corrosive ☐ Dangerous ☐ Flammable DRIVER INITIAL SW

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight. Note—Where the rate is on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically the shipper to be not exceeding _____ per _____

BIO LAB, Shipper [signature]

Per _____ Agent

Permanent Postoffice Address of Shipper: P.O. Box 1489, Decatur, Georgia 30031 [illegible]

HAZARDOUS MATERIALS PLACARDING CHART

EXPLOSIVE A
Placard any quantity of Explosives A or combination of Explosives A and B

EXPLOSIVE B
Placard any quantity of Explosives B. See EXPLOSIVES A placard if mixed with Explosives A materials

BLASTING AGENTS
Placard 1,000 lbs. or more gross weight of Blasting Agents. See DANGEROUS

FLAMMABLE GAS
Placard 1,000 lbs. or more of flammable gas. See DANGEROUS

NON-FLAMMABLE GAS
Placard 1,000 lbs. or more aggregate gross weight of non-flammable gas. See DANGEROUS

RADIOACTIVE
Placard any quantity of packages bearing the RADIOACTIVE YELLOW III label. Certain low specific activity radioactive materials, excepted packages, shall not bear the label, but RADIOACTIVE placard is required

OXIDIZER
Placard 1,000 lbs. or more gross weight of oxidizing material. See DANGEROUS

OXYGEN
Placard 1,000 lbs. or more aggregate gross weight of refrigerated liquid oxygen, compressed oxygen, compressed air, or other oxidizing gases (see 173.300). See DANGEROUS

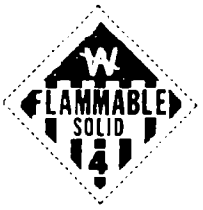
ORGANIC PEROXIDE
Placard 1,000 lbs. or more gross weight of organic peroxide. See DANGEROUS

CORROSIVE
Placard 1,000 lbs. or more gross weight of corrosive material. Placard not required for material that is corrosive only to steel when transported in a portable tank, cargo tank, or tank car by rail or highway. See DANGEROUS

COMBUSTIBLE
Placard a combustible equal when transported in a packaging exceeding 110 gallon rated capacity, in a cargo tank or a tank car. A FLAMMABLE placard may be substituted for the COMBUSTIBLE placard on a cargo tank, not portable tank, in highway transportation. See DANGEROUS

FLAMMABLE
Placard 1,000 lbs. or more flammable liquid. See DANGEROUS

FLAMMABLE SOLID
Placard 1,000 lbs. or more gross weight of flammable solid. A FLAMMABLE placard may be substituted for a FLAMMABLE SOLID placard, except when a DANGEROUS WHEN WET label is specified (See Hazardous Table, Sand W). See DANGEROUS



FLAMMABLE SOLID W
Placard any quantity of Flammable Solid only when DANGEROUS WHEN WET label is required. See Table of Hazardous Materials.

DANGEROUS
Placard 1,000 lbs. or more gross weight of miscellaneous material

A freight container, motor vehicle, or rail car containing two or more of the materials listed below may be placarded DANGEROUS instead of separate placarding for each material if no more than 5,000 lbs. aggregate gross weight of one class of materials is loaded at one loading facility (not applicable to portable tanks, cargo tanks, or tank cars)

Class C Explosives	Flammable Liquid
Blasting Agents	Flammable Solid
Nonflammable Gas	Oxidizer
Chlorine	Organic Peroxide
Pressurized Liquid Oxygen	Poison B
Flammable Gas	Corrosive Material
Combustible Liquid	Irritating Material

POISON GAS
Placard any quantity of Poison A

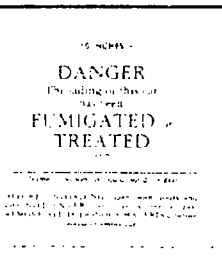
POISON
Placard 1,000 lbs. or more gross weight of poison B. See DANGEROUS

CHLORINE
Placard 1,000 lbs. or more gross weight of chlorine. See DANGEROUS

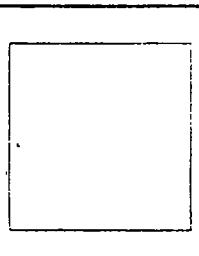
RAIL
Placarded empty tank cars for residue of material last contained

AVOID ACCIDENTS

DOME
Placard stamped tank cars containing carbon flammable liquids (See 173.314 Table)



FUMIGATED
Placard [illegible] of packages fumigated with poisonous liquid, solid or gas [illegible]



BACKGROUND
Background for EXPLOSIVE, POISON GAS and POISON GAS Empty

DISPLAY OF IDENTIFICATION NUMBER WHEN TRANSPORTING HAZARDOUS MATERIALS IN PORTABLE TANKS, CARGO TANKS AND TANK CARS

ORANGE PANEL

Must display U.N. hazard class number per approximately [illegible] in height

PLACARD

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