

Executive Summary

The following instruction highlights the general requirements of the COMPANY in order to facilitate preservation and ensure safe arrival of materials purchased by COMPANY.

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Definitions/Abbreviations

COMPANY	Karachaganak Petroleum Operating b.v.
Seller	An individual or entity that exchanges any type of good or service in return for payment
Buyer	A member of the Contracts & Procurement Department responsible for undertaking the Procurement exercise for the requirement in question
CIS	Commonwealth of Independent States countries
Supplier	A supplier, subcontractor or service provider
ICAO	International Civil Aviation Organization
UN	United Nations
IMCO	International Maritime Organization
IATA	International Air Transport Association

1 PURPOSE

The following instructions are designed to highlight the general requirements of the COMPANY in order to facilitate preservation and ensure safe arrival of materials purchased by COMPANY.

2 SCOPE

This specification details the minimum requirements for the preservation, packing, marking of goods purchased by COMPANY and to be transported to Job Site in Aksai, Kazakhstan and are designed to protect such goods against the hazards associated with the handling, transportation and climate conditions encountered whilst the products are being handled, in transit or in storage at site.

3 PACKING

3.1 General Packing Requirements

All precautions are necessary for shipments to arrive at destination without damage when handled by commercial carrier or freight forwarder. Packing shall be appropriate for all modes of transport where multi-modal freight forwarding might be executed. It should also take into consideration the conditions of CIS countries roads.

Seller is to adhere Rules for the carriage of goods by road (based on order from Ministry on investment and development of RoK № 546 dated 30th April 2015) on mandatory basis.

IMPORTANT NOTE: In case if airfreight mode of shipment is already identified on procurement stage, Seller shall ensure that export packing meets standards of air freight handling in such a way as to afford items maximum mechanical protection, reduction of total weight of the shipping units and allow stacking on an airline pallet .

Packing shall include all pre-crating protection activities including but not limited to the suitable application of approved anti-corrosion, coating, vacuum, desiccants, solvents, inert blankets and end caps. Depending on their type, the Products are to be protected against both mechanical damage (shocks, rupture, breakage, loss) and corrosion (rain, salty atmosphere, sand, wind).

For the purpose of this instruction, the term "shipping unit" may be used as a generalized description of a freight piece representing, but not limited to any of the following units: carton, crate, box, barrel, keg, drum, tower, tank, pipe, bar, steel, pallet, bundle or alternative package type.

Note: Carton box is acceptable for low weight cargo, but vendor must ensure reliable carton packing with proper filling inside to avoid damage and loss. If our Freight Forwarder reports to us on bad packing, the goods will be re-packed at Vendor's cost (if accepted) or at Company's cost.

Vendor can also arrange plywood packing.

3.2. Methods of Preservation and Packaging of different products:

Below are the COMPANY's recommendations on packing that shall be arranged by Seller:

a. Piping materials.

Following hydro test, piping shall be dried and, where required, coated with an approved preservative.

Open ended flange connections shall be closed using metal sealing plates. Sealing plates are to be mounted with a gasket to protect the flange face. The ends of pipes shall be provided with plastic wrapping or end caps in order to prevent the ingress of impurities and splatter inside the pipe.

Pipes are to be secured in the cargo with no less than four lashing belts / clamps each.

Weld bevels shall be blanked with plastic caps or plugs securely attached.

Threaded or socket connections shall be cleaned and plugged or capped with metal or plastic protectors safety threaded ring or hood for the pipe.

The isolated pipes and pipes with sensitive coating, unstable to external conditions / factors of the external environment, have to be provided and isolated from each other by the padding material for each layer, intended for transportation of sensitive cargo.



b. Electrical and instrumentation tools.

Long lengths of cable are to be coiled round wooden reels and protected with wooded staves. Cable ends shall be pulled out, bagged and sealed.

Cable entries and pneumatic tubing shall be sealed with approved stopping plugs.

Junction boxes, switch boxes, and electrical cabinets shall be supplied with an appropriate amount of desiccant inside and sealed from water ingress. Notice shall be attached indicating the presence of desiccant.

Motors shall not be shipped exposed to the ambient conditions or atmosphere. The Supplier shall review all instrumentation supplied under their Purchase Order, and remove any items liable to be damaged as a result of transport and storage. Open tubing, manifolds and bulkheads shall be capped or plugged, and securely clamped for shipment. Precision instruments, and other calibrated items shall be enclosed within waterproof, heat sealed boxes, together with a suitable quantity of desiccant to maintain the lowest possible humidity level within the package. Certain specialized Control and Instrumentation equipment may require specialized packing. Under such circumstances the specific requirements will be identified by the Supplier. It is the Suppliers responsibility to identify sensitive equipment with their scope, and to advice on any special shipping and / or storage conditions to which they may be subjected. Anti-condensation heaters shall be energized during storage, or after installation in unconditioned areas. For connection, any package shall consider and facilitate this without major removal of packing. Electrical equipment without anti-condensation heaters shall be stored in conditioned areas only. Supplier shall identify any equipment that must be stored in an energized state, detailing power requirements, expected life un-energized, and expected life energized. Equipment, and in particular spares, which need to be stored in an energized state should be identified and notified to the Company at the time of order. Batteries shall be removed for shipping, and separately packed. Batteries shall be stored in conditioned areas only. End of shelf life dates shall be clearly visible. Fragile items shall be wrapped in foam, plastic cushioning, or some equally efficient cushioning material, which will avoid damage to the goods. Shredded newsprint, excelsior, or like this material shall not be used.

c. Machinery Packages.

Large machines should have impeller housings purged with dry nitrogen, prior to sealing. Bagged desiccant shall not be used internally on any machine. Bearing housings shall be preserved in accordance with Supplier requirement External machined surfaces that may be subject to corrosion shall be coated with preservation oil before shipping, and suitably protected from mechanical damage. All shafts fitted shall be suitably strapped and coated to prevent damage and corrosion. Where possible, Supplier should ship machinery packages in sealed crates. All compressors, pumps, and other machinery items shall have external coatings applied at works. Where pumps mechanical seals are left in place they shall be fully dried and preserved according to the seal manufacturer's instructions. All test loop fluids shall be drained and flushed and seals dried. Dry gas seals may only be left in place when the time to start up is within the seal manufacturers recommendation / guarantee period. Otherwise the preservation strategy may be removal of dry gas seals prior to dispatch.

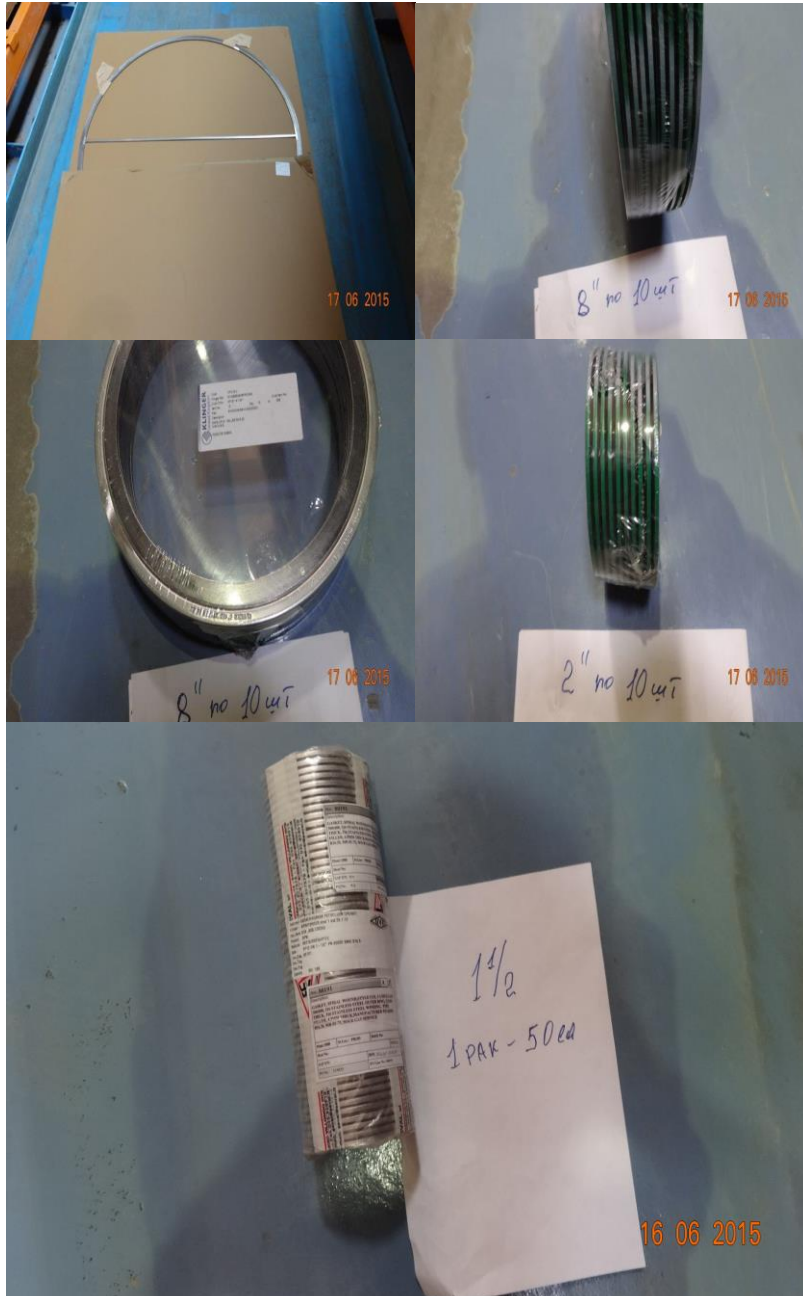
d. Vessels and Exchangers.

Vessels and exchangers shall be sealed. Where dry Nitrogen or other inert gas is used for internal preservation, the Supplier shall apply warning signs to all openings in the vessel of sufficient size that entry is possible, stating that the vessel must be force ventilated for at least 15 minutes prior to entry, or two complete volume changes whichever is the longer duration. All internal packing and protection shall be clearly identified externally so that it can be removed before commissioning. All vessels and exchangers shall have external coatings applied at the Supplier's works. Preservation oil shall not be used on internal surfaces of either vessels or exchangers.

e. Spare Parts and Components.

Loose components in the Supplier's scope (such as spares) shall be separately and suitably boxed. Items shall be packed in such a manner that reduces risk of movement inside the package that might happen during the transportation. Filling materials shall be put inside each package in order to reduce the risk of damage for fragile items; small and big inches of spiral gaskets need to be packed at different boxes, in addition, big inches of spiral gaskets must be fixed to a rigid base.

Example of the packing of the spiral gaskets:

**f. Electronic Equipment.**

Where practical electronic materials shall be shipped via air freight fully assembled, however, where large equipment is to be road freighted, the Seller shall remove circuit cards which are not physically locked in place, heavy cards such as power supply and cards where vibration is likely to damage connectors. All components removed shall be individually wrapped and packed in suitable containers. Diagrams showing the location of all cards shall be included with the equipment.

g. Rotating Equipment.

Rotating equipment shall be securely braced in order to prevent rotation or displacement during handling or transportation.

h. Structural Steel.

Structural steel items shall be, where practical, bundled together for shipment; All products, except pipes & vessels must be provided with weatherproof packing. The seller shall optimize the size, weight and complexity of the packing and packaging materials to minimize the cost of transport, handling, storage and site disposal of packaging materials. **Wasted space within shipping unit is a source of weakness.**

i. Piece Loads.

Piece loads that are shipped without packaging (metal rods, pipes, geomembrane, geotextiles, and so on), which cannot be received and loaded without significant time loss, must be shipped combined into larger loading units by bundling into bundles or hanks with wire places. The bond strength must be such that the crane can be lifted with a hook for any wire binding.

3.3. Packaging materials:**a. Wooden boxes and crates.**

All timber used in the construction of boxes and crates shall be sound and well-seasoned without evidence of rot, bark, grazes or splits. All boxes must be either waterproof lined or the goods inside the box must be insulated from moisture ingress even before the start of packaging. Timber boxes and crates shall be steel strapped and straps shall be secured with steel seals. For purpose of lifting by forklift truck, boxes and crates shall be fitted with skids having a skid height of no less than 100mm high and 150mm width. The design of timber boxes and crates shall take into consideration the method of lifting and where slings and chains are to be utilized; particularly those weighting in excess of 300.0kg, the top edge shall be sufficiently reinforced.

b. Pallets.

Pallets shall be non-returnable and pallet construction shall conform regulated standards. Material item when packed onto pallets shall be secured to the pallet and in all instances protected from damage, moisture, dust and other contaminants.

c. Sacks and bags.

When using sacks and bags the Seller shall ensure they are individually tagged and branded with the Purchase Order number, item reference and content. Sacks and bags when used for packaging of steel bolts, structural bolting, nuts and fasteners shall be packed into steel drums or similar storage container.

d. Cable drums.

Cable drums shall have timber battens that follow the full circumference of the drum. The initial end of the cable shall be secured firmly to the drum to prevent it breaking loose during transportation. Each drum shall be tagged or branded with the Purchase Order number, item reference and content details.

e. Bundles.

Bundles shall be treated as individual packages and marked accordingly. Strapping of bundled materials shall be in accordance with regulated standards.

f. Saddles.

Where support saddles are required for the transportation of the product such as vessels, exchangers, etc., they shall be designed and provided by the Seller incorporating the following:

Saddles shall be designed for the purpose of certain freight transportation, thus relevant drawings shall be submitted for review.

Saddles shall be fitted with lifting lugs and supplied with a steel rope or flat metal strapping to secure the saddles to the products during lifting / transport.

Subject to the transport configuration and design requirements, saddles may be either of timber or steel construction.

The securing must be able to prevent any horizontal, vertical or transvers movement between the cargo and the saddles

Whilst saddles should be approximately symmetrical about the centre of gravity of the load, their exact location shall must be agreed with COMPANY and the project freight forwarder prior to fabrication, to ensure compatibility with the carrying vehicle e.g. road vehicle or rail wagon.

The Saddle base must be suitable for securing to the transport either by bolting, clamping or welding.

To prevent the Saddles rotating about the load during lifting/unloading, sheer stops are to be fitted to the load shell so that the Saddle can be bolted or welded to the sheer stops via a sacrificial plate. This then will obviate the need for any 'over the top' strapping, slinging, securing of the Saddle to the load or the load to the transport and consequently the top area of the load does not need to be left clear of insulation and dressing.

Saddle detailed engineered drawings are to be supplied showing the number and position of the Saddles, dimensions, load per square metre for checking and approval purposes.

Shipping drawings are to be supplied for all individual items with a weight in excess of 20 tonnes, a length in excess 12m, a width or height in excess of 2.5m or where shipping saddles are being provided. Such drawings must clearly show full dimensions, weights, centre of gravity, lifting/securing points and saddle locations.

3.4. Hazardous materials packing

All outside containers and packing shall be in accordance with rules and regulations of applicable governmental agencies such as I.C.A.O. / U.N. / I.M.C.O. and I.A.T.A. for all hazardous cargo such as poisons, poison gas, inflammable liquids, compressed gases, inflammable solids, oxidizing materials, non-inflammable compressed gases, explosives and radioactive material.

The supplier must provide a warning label and a safety data sheet for goods containing hazardous substances in accordance with the Chemical Classification and Labeling System. The warning labeling must comply with the requirements of the Law of the Republic of Kazakhstan "On the Safety of Chemical Products" and GOST 31340, the Technical Regulations "Requirements for Packaging, Labeling, Labeling and Proper Application" and should include:

1. Name and full address of the supplier, including telephone, fax, telex and e-mail;
2. The name of the substance;
3. Type of danger;
4. Mass or volume;
5. The batch number;
6. Date of manufacture (release) and shelf life;
7. Standard danger symbols

The warning marking must be marked with clear indelible letters and / or symbols.

All the supplied dangerous chemicals must be provided with a chemical safety data sheet. The chemical safety passport must be in Kazakh, Russian and English languages and

comply with the requirements of the Law of the Republic of Kazakhstan "On the Safety of Chemical Products" and STANDARD RK 1185. Regulation of the European Union (Regulation (EC) No. 1907/2006).

Seller must certify that the Products have been packaged for transportation in accordance with all applicable government agency requirements and Hazardous cargo Certificates must be provided for all items identified as Hazardous in the above regulations / rules.

In case of impossibility to provide documents in three languages, the responsibility for the translation is on the initiator of purchase order.

Seller shall package the Products in accordance with these instructions. In case above is not fully defines the standards required for certain freight transportation, the best practice and standards for packing shall be followed. This instruction covers minimum requirement and was not formed solely for the product purchased; therefore, in case instruction is incomplete or not suitable for the product purchased, seller shall notify Buyer accordingly and obtain Buyer's approval to substitute any element of this instruction with another.

4 MARKING

4.1 General Marking Requirements

Seller shall mark the Products in accordance with these instructions, including the International requirements for the marking of goods, as well as requirements for the labelling of the hazardous chemicals.

It is COMPANY's requirement that each individual "shipping unit" shall be branded with the Purchase Order number, address of material's destination, as well as marking of the each sub item within each shipping unit.

4.2 Labels, Placards, and Tags

Shipping units shall be marked using the following marking tools:

- a. **Labels:** Labels shall be printed on durable, weather resistant material using waterproof ink. Labels shall be affixed to the shipping unit by waterproof glue.
- b. **Tags:** For items which cannot be cased, but must be bundled, each bundle must have two indestructible metallic tags attached with the specified markings stencilled thereon, in black paint, tied to the bundle with heavy gauge wire.

4.3 Marking data

Each shipping unit shall be marked as shown below using letters of at least 50mm in height:

SHIPPING MARKS

KARACHAGANAK PETROLEUM OPERATING
B.V
KAZAKHSTAN BRANCH OFFICE, AKSAI,
INDUSTRIAL ZONE
BURLINSKI REGION, WEST KAZAKHSTAN
OBLAST
REPUBLIC OF KAZAKHSTAN 090300

P. O. No.:

Seller's name: _____

Box No.: _____ of _____

Dimensions: L_____ x W_____ x H_____ cm

Gross Weight: _____ Kg; Nett

Weight: _____ Kg

Marking shall be shown on the top and two adjacent sides of each shipping unit and shall be of waterproof ink. Fractional numbering shall be used indicating the total number of the packages in each consignment and the initial number of package, i.e three packages in one consignment 1/3, 2/3,3/3 shall be used.

Each sub item within each shipping unit must have its own labelling in form of a tag, plate and label with clearly marked data. Supplier shall ensure due marking using waterproof tags for each item purchased by COMPANY, hence guaranteeing that labelling shall last for a minimum five years. It is required for timely identification (compatibility defining) of items during customs inspection and further receipt at Company's warehouse.

Product data must contain:

- Purchase requisition number or Call Off Notice number
- Item number
- Item description
- Catalogue number (P/N) – must be indicated on the product itself
- Quantity
- Shelf life (if necessary)

The description of the item on the tag must fully correspond to the description of the same item in the signed purchase order.

4.4 Special handling symbols

Seller shall apply a special handling symbols to those "shipping units" which can be easily damaged, in order to prevent such cases during cargo handling and transportation. These shall include but not be limited to:

A) All cases and packages are to be marked on opposite sides "THIS END UP" in black with an arrow as indicated below at least 200 mm in height.



B) All Cases, Crates or single packages which require special care during movement will have the following additional marking:

**FRAGILE-HANDLE WITH CARE – KEEP DRY – NOT STACKABLE- DO NOT LIFT HERE-
-USE NO HOOKS**

C) Additionally, where applicable, for bulk or heavy lifts the lifting points and centre of gravity (C of G) should be clearly marked.

D) Packages or individual pieces having a weight of five (5) tones or greater shall have “ SLING HERE” symbol displayed.










4.5 Temperature Sensitive Equipment












Seller shall advise COMPANY on each cases where purchased materials may be damaged by shipment and/ or storage at low temperatures. COMPANY shall be notified two (2) weeks prior material's release by seller.




5 APPENDICES

APPENDIX 1: MAIN HANDLING SIGNS, THEIR IMAGE AND PURPOSE

Handling signs mean symbols showing the ways of cargo handling. Requirements of application and types of applied handling signs should be defined by standards or technical specifications for goods.

Title of sign	Image	Purpose
Fragile, Handle with care		Fragility of cargo. Careful handling of cargo.
Keep away from sun rays		Cargo should be protected from sun rays.
Keep dry		Requirement to protect cargo from humidity.
Keep away from radiation		Any type of radiation can influence the properties of cargo and change them (e.g. undeveloped film).
Temperature limitations		Temperature range at which the cargo should be stored or handled.
Perishable cargo		Cargo at transportation and storage cannot be under the influence of high or low temperature, and for appropriate measures are required for protection of cargo (refrigeration, heating, ventilation etc.). the sign is applied to cargos, which should be transported in accordance with rules of perishable cargoes transportation, set by the Ministries of Transport.
Tight packing		During transportation, handling and storage it is prohibited to open the package.
Use no hooks		Prohibits the use of the hooks used for handling cargo
Sling here		Indicates where the cargo should be slung with rope or chain for lifting.

<p>No hand truck here</p>		<p>Indicates points where there is prohibited to use hand truck.</p>
<p>Top</p>		<p>Points right vertical position of cargo.</p>
<p>To lift directly on the cargo</p>		<p>Lifting should be performed only directly on the cargo, i.e. to lift the cargo on the package is prohibited.</p>
<p>Open here</p>		<p>To open package only in indicated point.</p>
<p>Protect from radioactive sources</p>		<p>Radiation can decrease or destroy the value of cargo.</p>
<p>Do not roll</p>		<p>Do not roll the cargo.</p>
<p>Do not clamp</p>		<p>The package may not be clamped at the indicated points.</p>
<p>Clamp here</p>		<p>The package may be clamped at the indicated points.</p>
<p>Limit of layers number in the stack</p>		<p>Maximum number of similar cargos, which can be stacked on top of one another, where n – is limit number.</p>
<p>Stacking limitation</p>		<p>Stacking of the cargo is not allowed. It is not allowed to put other cargoes to the top of the package bearing this symbol during transportation.</p>
<p>Do not stack</p>		<p>Stacking of the cargo is not allowed. It is not allowed to put other cargoes to the top of the package bearing this symbol during transportation.</p>










<p>Tropical package</p>		<p>Sign is applied to cargo, when damage of package at loading-unloading works, transportation or storage can result in spoilage of cargo due to negative impact of tropical climate. Symbols: T – sign of tropical package; 00-00 – month and year of packing.</p>
<p>Center of gravity</p>		<p>Indication of the position of the center of gravity. To be meaningful, this symbol should only be used where the center of gravity is not central.</p>
<p>Do not use forklift truck here</p>		<p>Forklift truck cannot be used.</p>

APPENDIX 2: MARKING OF HAZARDOUS SUBSTANCES

1) Warning signs

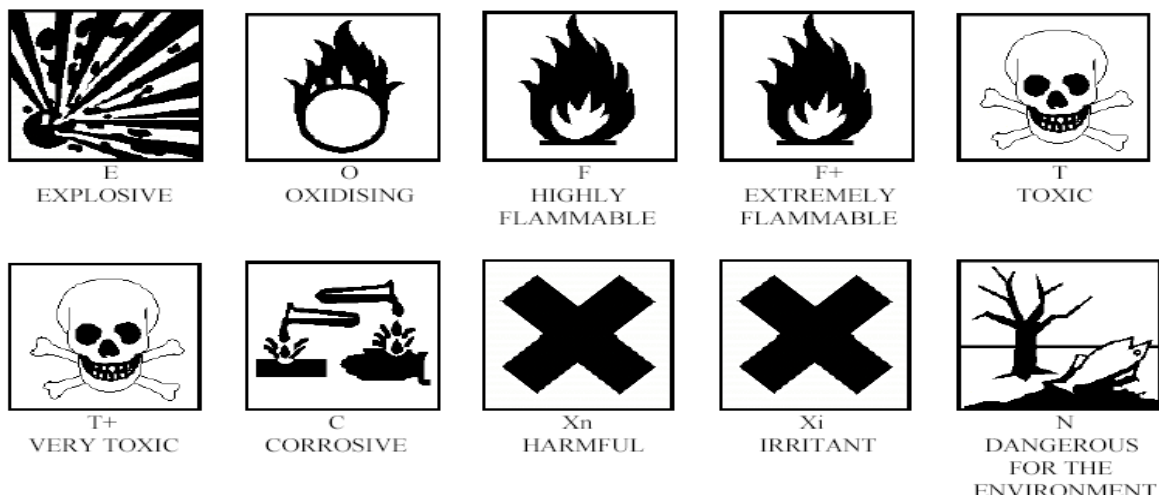
Warning sign consists of: danger symbol, signal word and safety alert symbol.

1) Standard danger symbols in accordance with globally approved classification and marking system of chemicals (SGS) are shown in the below table.

<p>Flame</p> 	<p>Flame over a circle</p> 	<p>Exploding bomb</p> 
<p>Liquids running out from two test-tubes and damaging metal and hand</p> 	<p>Gas cylinder</p> 	<p>Skull and cross-bones</p> 
<p>Exclamation mark</p> 	<p>Dead tree and dead fish</p> 	<p>Hazard for human health</p> 

Also it is acceptable to use danger symbols in accordance with requirements of European Union (directives of EU 67/548 “On classification, packing and marking of chemicals”).

Standard danger symbols of European Union:





2) Signal words

“Danger” (for goods with high hazard level).

“Warning” (for goods with lower hazard level).

3) Safety alert symbol – phrase-warning about risks as shown below

	<p>Warning Skin irritant. Eye irritant.</p>
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	<p>Warning Flammable liquid. Fumes generate explosive mixtures when contact with air.</p>
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