

TO WHOM IT MAY CONCERN

Information Sheet

Shipment of Charcoal (UN 1361) by Sea

IMDG Code Amendment 42-24 + Public Carrier Requirements

This information sheet summarizes the applicable safety and documentation requirements for the sea transport of charcoal under **UN 1361 – CARBON, animal or vegetable origin, Class 4.2**, based on **IMDG Code Amendment 42-24** and publicly available carrier guidance. Charcoal is now treated as a dangerous good without the former broad exemptions under Special Provisions 925 and 223; the new regime is based on **Special Provision 978**.

This sheet is intended for shippers, exporters, forwarders, surveyors, stuffing teams and booking staff handling charcoal cargo in containers. It reflects the **baseline mandatory IMDG rules** and also identifies where some carriers apply **stricter company rules** beyond the code itself.

1. Classification and legal basis

Charcoal for sea transport must be declared as:

UN 1361 – CARBON, animal or vegetable origin

Hazard Class: 4.2 – Substances liable to spontaneous combustion

Under IMDG Amendment 42-24, the earlier treatment that sometimes allowed charcoal to move outside the DG framework has been removed. The new Special Provision 978 introduces mandatory rules on preparation, packaging, marking, documentation and container packing. The amendment was available for voluntary use from **1 January 2025** and becomes mandatory globally from **1 January 2026**. MSC states that it applies full compliance already from **1 November 2025**; Hapag-Lloyd introduced its DG regime for charcoal from **1 April 2025**; CMA CGM states that it began applying the new requirements from **1 June 2025**.

2. Core risk behind the rules

The reason for these stricter rules is the well-known self-heating and spontaneous-combustion risk of charcoal. Improperly prepared, insufficiently weathered, still-hot or badly packed charcoal can generate heat, develop hot spots and ignite inside a package or container. Industry guidance from CINS and the World Shipping Council explicitly links the changes to fire incidents and the need for improved preparation, declaration and stowage.

3. Mandatory weathering requirement

After production, the unpacked charcoal must be stored **under cover but in the open air** for a **minimum of 14 days** before it is packaged for transport. This weathering requirement appears in MSC's public guidance, Hapag-Lloyd's public guidance and CMA CGM's public guidance.

Where a manufacturer cannot achieve the full 14-day weathering period, Maersk's public procedure states that approval by the competent authority must be obtained and submitted together with the weathering certificate and an explanation for the shortfall. That is a carrier-specific escalation rule and should not be assumed to apply universally unless the line requires it.

4. Temperature limit at the time of packing

The temperature of the material must **not exceed 40°C** on the day of packing. This is stated in MSC's public summary, Hapag-Lloyd's public customer notice, Maersk's procedure and CMA CGM's flyer.

CMA CGM's public flyer adds a more operational stuffing control point in its vanning survey: the temperature of the cargo when packed into the CTU should be **maximum 5°C above ambient temperature**. That is useful operationally, but it should be treated as a line-specific survey expectation layered on top of the basic 40°C rule.

5. Packaging basis under IMDG 42-24

The applicable packing instruction shown in MSC's public summary is **P002**. MSC further shows the IBC instructions **IBC06** for Packing Group II and **IBC08** for Packing Group III, while CMA CGM and Maersk also refer publicly to P002 for packaged charcoal cargo. MSC's summary also shows that **LP02** is not applicable for the relevant UN 1361 entry.

Public carrier guidance consistently states that charcoal must move in **UN-approved and certified packaging**. Hapag-Lloyd expressly says shipments must be loaded into **UN-approved and certified packaging** and that marking, labelling and placarding requirements apply. CMA CGM states that carbon/charcoal must be in packaged form, approved and certified, and that bulk is prohibited. MSC says Special Packing Provision PP12 has been removed and notes that certain former bag types are no longer allowed.

6. Packaging types not allowed

MSC's public summary states that the former Special Packing Instruction **PP12** has been removed and that packaging types **5H1, 5L1 and 5M1** are not allowed. Maersk's procedure is stricter in its published wording and lists **4H1, 5H1, 5H2, 5L1, 5L2 and 5M1** as not allowed.

Because carriers may apply slightly different internal acceptance filters, the practical rule is: **do not assume a packaging type is acceptable just because it may not be named in another line's public summary**. Always confirm the exact accepted packaging types with the booked carrier before stuffing. This is especially important where booking approval is manual or subject to DG pre-approval.

7. Bulk transport is not allowed

Hapag-Lloyd explicitly states that **containerized transports in bulk without any packaging are not allowed**. CMA CGM's public flyer states that charcoal must be shipped **in packaged form** and that **bulk is prohibited**. MSC's public material focuses on packaged transport under P002 / IBC instructions, which is consistent with the same result.

8. Marking and labelling of packages

MSC's public summary states that conventional packaging and IBCs must show:

- **UN approval marks**
- **UN number and Proper Shipping Name**
- lettering at least **12 mm high**
- the **Class 4.2** label.

MSC also explains an important distinction:

- if **single packaging** is used, for example UN-approved bags, then **every individual bag** must carry the required marks and labels;
- if **outer packaging** is used, for example a UN-approved plywood box, then the required marks and labels are placed on the **outer packaging only**, while the inner packaging is exempt.

CMA CGM's public flyer likewise requires that the package bear the identification **UN 1361 / CARBON** and the **Class 4.2** label.

9. Use of non-UN inner bags in an outer package

MSC's public summary allows a limited fallback scenario where existing non-UN-approved bags may still be used, but only if all of the following apply:

- the bags are **sift-proof**;
- they hold **maximum 50 kg per bag**;
- they are placed into a **UN-approved outer packaging**;
- the maximum net cargo weight per outer packaging is **400 kg**.

MSC gives examples such as **4D plywood box** or **4G fibreboard box** as outer packaging.

That is a very specific exception. It is not the same thing as saying ordinary bags are generally acceptable. The baseline rule remains UN-approved packaging, unless a carrier expressly accepts this fallback structure.

10. Oxygen barrier, sealed liner, vacuum packing and thermal jacket

This is the point where practice and code must be separated very clearly.

The **general IMDG / public MSC / public Hapag-Lloyd / public CMA CGM position** is that charcoal must meet the mandatory rules on classification, weathering, temperature, certified packaging, marking, documentation and container stowage. In the public materials I reviewed, **MSC does not publicly state a universal requirement that every charcoal shipment must be vacuum packed with a thermal jacket.**

Maersk, however, does state exactly that in its public procedure. Maersk's published charcoal advisory says that **every shipment of charcoal must be completely vacuum packed with a thermal jacket**, supplied by the shipper's preferred Maersk-recommended supplier. The same procedure requires photos showing the thermal jacket in completely vacuumed condition and a vanning certificate confirming that each container is completely vacuum packed with a thermal jacket.

So the correct and defensible wording for a Merkblatt is this:

Certain carriers may impose stricter packaging requirements beyond IMDG 42-24, including an inner oxygen-barrier or vacuum packaging system combined with thermal protection. Where such carrier-specific requirements apply, the shipper must comply with the carrier's nominated packaging system and documentary evidence requirements before booking and stuffing.

This also resolves the practical misunderstanding: the container itself is not transported “under vacuum”; rather, **the package system inside the container** may be required by a carrier to be vacuum-packed or oxygen-reducing. That is fully consistent with Maersk’s published wording.

11. Container packing and headspace

MSC states that a **minimum headspace of 30 cm** must be maintained in the Cargo Transport Unit. Hapag-Lloyd says the same. CMA CGM’s public flyer also requires a **minimum 30 cm gap** between the cargo and the top of the container.

CMA CGM additionally recommends applying the **CTU Code** for proper and safer stuffing. That is a sensible operational standard and should be followed in any case for load distribution, stability and securing.

12. Placarding and marks on the container

MSC’s public summary states that the **Class 4.2 placard** must appear on **all four sides** of the container. Where the cargo gross weight exceeds **4,000 kg**, the UN number must also be affixed. CMA CGM’s flyer states the same principle: hazardous identification on the four faces of the CTU, including **Class 4.2 placards**, and **UN 1361 marks** when the shipment contains only carbon/charcoal with more than 4,000 kg.

13. Mandatory transport documentation

Hapag-Lloyd, MSC and CMA CGM all publicly confirm the need for a **Dangerous Goods Declaration** / DG-compliant declaration for charcoal under the new regime. Hapag-Lloyd states that charcoal must always be declared as dangerous goods; MSC states the same in substance through its implementation of SP 978; CMA CGM requires approved shippers and DG documentation.

MSC’s public summary states that the transport document must include these additional mandatory details:

- **Date of production**
- **Date of packing into packaging**
- **Temperature of the material (°C) on the day of packing into packaging.**

Hapag-Lloyd’s public guidance lists the same three additional data points.

14. Additional supporting documents commonly required by carriers

Beyond the DGD itself, public carrier guidance shows that several lines require supporting evidence before accepting the shipment.

Maersk publicly requires, among other items:

- **Material Safety Data Sheet**
- **Dangerous Goods Declaration and Packing Certificate**
- **Weathering certificate**
- **Vanning certificate**
- photo evidence of weathering, packaging, temperatures, stuffing and the vacuum-packed thermal jacket.

CMA CGM publicly requires:

- **Dangerous Goods Declaration**
- **Weathering certificate/report**
- **Vanning survey.**

This means that, in real operations, a shipper should not prepare only the DGD. A proper booking package for charcoal often includes at least:

- DGD / DG declaration
- weathering certificate
- packing / stuffing evidence
- survey or vanning report
- temperature records
- photos
- MSDS / SDS where required by the line.

15. Content of a robust weathering certificate

A practically sufficient weathering certificate, based on Maersk's public procedure and consistent with the wider rule set, should contain at least:

- producer / manufacturer identity
- date of production
- start and end date of weathering
- start and end date of packaging
- statement that the unpacked material was stored **under cover but in the open air** for at least **14 days**
- statement that the cargo temperature during packaging did not exceed **40°C**
- reference to booking and container number if already available
- product description, including charcoal type
- date, signature and stamp on company letterhead.

If a carrier requires photos, include straight-on photographic evidence of the weathering process, packaging process and temperature measurement. Maersk expressly calls for this.

16. Content of a robust vanning / stuffing report

A practically strong vanning report, based on CMA CGM's flyer and Maersk's public procedure, should cover:

- date and time of stuffing
 - container number and seal number
 - packaging type and package count
 - cargo type and particle size where requested
 - ambient temperature
 - cargo temperature at stuffing
 - confirmation of required headspace
 - photos of empty container, intermediate stages and full container
 - confirmation that packages are intact and correctly marked
 - confirmation that container placards and marks were correctly applied
 - where required by the carrier: confirmation and photos of complete vacuum packing with thermal jacket.
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17. Carrier-specific implementation summary

The public materials reviewed show the following picture:

MSC

Applies IMDG 42-24 charcoal requirements on a mandatory basis from **1 November 2025**, ahead of the global IMO mandatory date. Publicly emphasizes classification, 14-day weathering, max. 40°C at packing, 30 cm headspace, UN-approved packaging, package marks/labels, container placarding and extra transport-document data.

Maersk

Publicly applies a significantly stricter operational regime, including complete **vacuum packing with thermal jacket**, use of recommended suppliers, detailed weathering and vanning certificates, photo evidence and documentary confirmations.

CMA CGM

Publicly applies the new requirements from **1 June 2025**, accepts charcoal only from **approved shippers**, and publicly requires DG declaration, weathering certificate, vanning survey, packaged form only, UN-approved certified packaging and 30 cm top gap.

Hapag-Lloyd

Publicly required full DG compliance for charcoal from **1 April 2025** and states that charcoal must always be declared as DG, be weathered at least 14 days or packed under inert gas after pyrolysis with 24-hour storage, be packed only if not exceeding 40°C, not move in bulk,

maintain 30 cm headspace, and use UN-approved packaging with proper marking, labelling and placarding. Hapag-Lloyd also publicly states a DG surcharge.

That is exactly why one blanket sentence such as “all carriers require X” is unsafe. The **baseline** is IMDG 42-24. The **line-specific layer** differs.

18. Recommended shipper rule for bookings

For practical use, the shipper should follow this internal rule:

No charcoal booking should be confirmed until both layers have been checked:

1. **IMDG 42-24 compliance, and**
2. **carrier-specific acceptance rules for the booked line and trade.**

That means the shipper must confirm before stuffing:

- accepted packaging type
 - whether vacuum packaging / thermal jacket is required
 - whether only approved shippers may book
 - whether a weathering certificate template is prescribed
 - whether a nominated surveyor or vanning survey is required
 - whether pre-approval is needed before gate-in.
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19. Recommended wording for your customer procedure

You can use this clause in your own document:

Carrier-specific requirements may apply in addition to IMDG Code Amendment 42-24. Depending on the selected shipping line, charcoal shipments may require pre-approval, approved shippers, weathering certificates, vanning surveys, photo evidence, and in some cases vacuum-packed inner barrier systems with thermal protection. The shipper remains responsible for verifying and complying with the exact acceptance criteria of the booked carrier before stuffing and dispatch.

20. Practical shipper checklist

Before shipment, verify the following:

- Cargo correctly classified as **UN 1361 / Class 4.2**
- **IMDG 42-24 / SP 978** reviewed
- weathering completed for at least **14 days**, unless a carrier/authority-approved alternative applies

Global Container Shipping UG; Pillauer Strasse 24; 28816 Stuhr; geschäftsführender Gesellschafter: Ralf Kaptein
Umsatzsteuer Identifikationsnummer: DE328092572

Bankverbindung: Kreissparkasse Syke – Filiale Stuhr – IBAN DE73 2915 1700 1011 1976 11 / BRLADE21SYK

Die GCSA UG arbeitet ausschließlich auf Basis der ADSp in der neusten Fassung

Das Unternehmen ist eine Unternehmersgesellschaft mit beschränkter Haftung

- cargo temperature at packing $\leq 40^{\circ}\text{C}$
 - packaging type approved by the carrier and compliant with IMDG
 - forbidden package types not used
 - package marks and labels applied correctly
 - CTU headspace **minimum 30 cm**
 - container placarded on all required sides
 - DGD completed with date of production, date of packing and packing temperature
 - weathering certificate available
 - stuffing / vanning report available
 - photos available if required
 - carrier-specific rules checked and confirmed before booking.
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21. Bottom line

The safe and bookable shipment of charcoal is no longer a casual commodity process. Under the current framework, charcoal must be handled as dangerous goods under **UN 1361 / Class 4.2**, with strict rules on weathering, temperature, packaging, marking, documentation and container packing. On top of that, major carriers may apply materially stricter acceptance conditions — especially in relation to survey evidence, approved shippers and vacuum-packed thermal barrier systems.