



**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals****Sub-Committee of Experts on the Transport of Dangerous Goods****Fifty-ninth session**

Geneva, 29 November – 8 December 2021

Item 3 of the provisional agenda

Listing, classification and packing**Proposal for exemption of manufactured articles containing
small amounts of Gallium - Update of document
ST/SG/AC.10/C.3/2021/17****Transmitted by the expert from China*****Introduction**

1. At the fifty-eighth session of the Sub-Committee, the expert from China submitted official document ST/SG/AC.10/C.3/2021/17, proposing to amend special provision 366 to make it also adjust to “gallium contained in manufactured articles”, so that articles containing gallium and meeting relevant requirements were not subjected to the UN Model Regulations.
2. Gallium, UN No. 2803, is a corrosive silver white metal with a low melting point. Considering that it is safer and more environmentally friendly, this metal and its alloys are currently being widely used in a variety of products (such as mercury-free gallium thermometers and gallium UV lamps) as a substitute of mercury. According to the Model Regulations, mercury-containing articles meeting the requirements in special provision 366 are not subject to the regulations, while there is no special provision to exempt manufactured articles containing small amounts of gallium.
3. During the discussion at that session, most experts who spoke showed no opposition to the principle of this proposal. However, on the proposed options for amendments, agreement was not reached. Experts gave many valuable comments on issues including whether it is necessary to introduce a new UN number, whether the special packaging provision PP41 referring to dry ice should be introduced for gallium contained in manufactured articles, whether the requirements to exempt articles containing mercury and gallium in special provision A69 of the Technical Instructions of the International Civil Aviation Organization (ICAO) should be introduced into the UN Model Regulations, etc.
4. After considering the feedback received during that session, experts from China submitted this updated working document to the fifty-ninth session of Sub-Committee.
5. This document contains two options. Option 1 is to add the entry GALLIUM CONTAINED IN MANUFACTURED ARTICLES and amend special provision 366 for this

* A/75/6 (Sect.20), para. 20.51

entry. Option 2 is to introduce a new special provision to the current entry of UN No. 2803, GALLIUM, to exempt the articles meeting the requirements in the new special provision, while articles containing gallium that do not meet the requirements should be transported under UN No. 3363 or UN No. 3547.

Proposal

6. China proposes two options to address exemption of manufactured articles containing small amounts of gallium (new text is bold and underlined, deleted text is stricken-through).

Option 1

7. It is proposed to add in Chapter 3.2 Dangerous Goods List a new entry for gallium contained in manufactured articles and to insert in the new entry the modified special provision 366 as follows:

UN No.	Name and description	Class or division	Subsidiary hazard	UN packing group	Special Provisions	Limited and excepted quantities		Packagings and IBCs		Portable tanks and bulk containers	
								Packing instruction	Special packing provisions	Instructions	Special provisions
35XX	GALLIUM CONTAINED IN MANUFACTURED ARTICLES	8			366	5kg	E0	P003	PP90		

8. In 4.1.4.1 amend in packing instruction P003, special packaging provision PP90 to read as follows:

"**PP90** For UN 3506 **and UN 35XX**, sealed inner liners or bags of strong leak-proof and puncture resistant material impervious to mercury **or gallium** which will prevent escape of the substance from the package irrespective of the position or the orientation of the package shall be used. For air transport additional requirements may apply."

9. In Chapter 3.3 amend special provision 366 to read as follows:

"**366** For land and sea transport, manufactured instruments and articles containing not more than 1 kg of mercury **or gallium** are not subject to these Regulations. For air transport, articles containing not more than 15 g of mercury **or gallium** are not subject to these Regulations."

10. And amend special provision 365 to read as follows:

"**365** For manufactured instruments and articles containing mercury **or gallium**, see UN 3506 **or UN 35XX**."

11. In addition, amend in 3.2.2 the existing entry UN No. 2803 GALLIUM to apply special provision 365:

UN No.	Name and description	Class or division	Subsidiary hazard	UN packing group	Special Provisions	Limited and excepted quantities		Packagings and IBCs		Portable tanks and bulk containers	
								Packing instruction	Special packing provisions	Instructions	Special provisions
2803	GALLIUM	8		III	365	5kg	E0	P800	PP41	T1	TP33

Option 2

12. It is proposed to introduce in Chapter 3.2 Dangerous Goods List a new special provision 3YY to the current entry of UN No. 2803:

UN No.	Name and description	Class or division	Subsidiary hazard	UN packing group	Special Provisions	Limited and excepted quantities		Packagings and IBCs		Portable tanks and bulk containers	
								Packing instruction	Special packing provisions	Instructions	Special provisions
2803	GALLIUM	8		III	<u>3YY</u>	5kg	E0	P800	PP41	T1	TP33

13. In Chapter 3.3 add a new special provision 3YY to read as follows:

"3YY For land and sea transport, manufactured instruments and articles containing not more than 1 kg of gallium are not subject to these Regulations. For air transport, articles containing not more than 15 g of gallium are not subject to these Regulations. Manufactured instruments and articles containing an excessive amount of gallium shall be transported under the entries UN 3363 , DANGEROUS GOODS IN ARTICLES or DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS, or UN 3547, ARTICLES CONTAINING CORROSIVE SUBSTANCE, N.O.S. , as appropriate."