



# Critical minerals in ISO, an overview

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[iso.org](https://www.iso.org)

# The ISO system



Global network – 168 member countries



Our job is to make voluntary  
International Standards → 24,000+



We are coordinated by a  
Central Secretariat in Geneva



300+ technical committees developing  
100+ standards every month

# Metals and minerals in ISO

## The Committees

Committee		Established	Secretariat/ P-members	Standards Published	In prep	
TC 18	Zinc and zinc alloys	1947	Belgium/14	10	---	
TC 26	Copper and copper alloys	1947	China/14	27	---	
TC 79	Light metals and their alloys	1953	France/15	111	10	
TC 132	Ferroalloys		1969	China/7	69	2
TC 155	Nickel and nickel alloys		1973	France/9	32	1
TC 183	Copper, lead, zinc and nickel ores and concentrates	1983	Australia/9	27	5	
TC 298	Rare earth		2015	China/14	7	9
TC 333	Lithium		2020	China/20	---	14



# Metals and minerals in ISO

## The topics

Chemical analysis methods –  
determination of elements content

Vocabularies, classification,  
code designation, delivery



# Metals and minerals in ISO

## The new topics

Sustainability, traceability, full supply chain

- TC 82/SC 7, Sustainable mining and mine closure
- TC 207, Environmental management
- TC 308, Chain of custody
- TC 323, Circular economy

Material-agnostic

# Strategic Advisory Group on Critical Minerals (SAG CRMI)

Established in March 2021, AU leadership, 12 Countries, 11 TCs

First Mandate, March 2021-April 2022:

- **analysis of existing and potential ISO work** in the area of critical minerals

Second Mandate, June 2022-April 2023:

- strategic advice on the **organisation of the ISO work** on critical minerals, including the development of overarching **guidance for common chemical analysis techniques**,
- investigate **market need for standards on sustainability issues** related to critical minerals
- investigate the possibility to develop an **overarching guidance for participants in the critical mineral supply chain**

# SAG CRMI main work

- ISO Committees and ISO standards stocktake and gap analyses
- Analyses of ISO ICP and XRF methods, to derive possible guidance/templates
- Global Survey on market needs and priorities:
  - Priority minerals
  - Optimal chemical analyses techniques
  - Familiarity to existing sustainability tools
  - Usefulness of ISO overarching guidance for Critical Minerals Supply Chain participants

# SAG CRMI main findings

- Minerals to focus on: Co, Cr, Graphite, Sb
- 10 selected ISO Standards as ISO “models” for ICP and XRF techniques
- Mechanisms for consolidation/co-ordination across ISO committees
- Need for a generic traceability model applicable to many critical minerals
- Need for overarching informative guidance on Critical Minerals Supply Chain
- Collaboration with Partners

*A definition for the purposes of the SAG work:*

*“A critical mineral is defined as an essential mineral or mineral-based resource necessary for a particular economic activity, whose supply is deemed to be at risk and whose absence would have detrimental consequences to a commercial entity and to the economic, environmental, security and social well-being of a country, common economic region or specific region.*

*NOTE: In this definition, 'mineral' includes metallic and non-metallic elements which in many cases are compounds or alloys.”*



# Other recent initiatives

- A proposal for a new TC on “Specialty minerals and metals” (France) – open for consultation
- A proposal for a Standard “Sustainable raw materials” (Germany) – to be submitted

# What's next

Technical Management Board to discuss in June 2023:

- the final SAG CRMI report and findings (recommendations),
- the two recent initiatives,

and make decisions about the ISO work on Critical Minerals (projects and structure) and opportunities for co-operation with Partners



# Cooperation on the technical arena

“Liaisons” between ISO Committees and external organizations:

- Category B – Ensure a bidirectional flow of communication
- Category A – Organizations actively contribute, comment on drafts, lead projects, submit proposals

UNECE is in A-liaison with 41 Committees, and in B-liaison with 27 Committees



# Thank you.

Working together to make lives  
*easier, safer, better.*

Mercè Ferrés Hernández  
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Secretary of the SAG Critical minerals

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