



# high-performance diluents for metal extraction







# the more you understand the challenges of metal extraction, the clearer the choice becomes

Escaid<sup>™</sup>110 Escaid<sup>™</sup>115 Escaid<sup>™</sup>120 Fluids









## metal extraction is a science

Modern solvent extraction circuits are highly engineered and sophisticated hydrometallurgical processes. They can also operate in very demanding and sometimes remote locations.

with so much value at stake, you need a diluent supplier who:

- understands the challenges faced by the mining industry
- can offer the right product in the right place
- can meet the changing needs of the industry

### extraction diluents for today and tomorrow

The days when kerosene was the primary extraction diluent are well and truly over. Today, the range of metals and solvent extraction processes demand diluents which deliver consistent, reliable performance and which can enhance the extraction process.

As safety and environmental standards continue to change, products with higher flash point / lower vapor pressure and much lower aromatic content provide the mining industry with what they need to meet these standards.

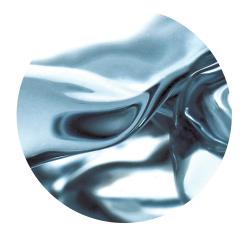
ExxonMobil Chemical developed Escaid fluids, as diluents, to meet these evolving needs of the mining industry. They are used extensively in the extraction of copper, nickel, uranium and other valuable metals. In fact, they are relied upon in some of the world's largest mining operations.

With manufacturing facilities in the United States, Europe, and Asia Pacific, coupled with worldwide distribution capabilities, ExxonMobil Chemical is the only truly global supplier of the full range of solvent extraction diluents.





### Escaid<sup>™</sup> fluids



Escaid fluid product portfolio offers a choice of diluents to optimize your solvent extraction process.

Escaid 110 fluid is the diluent of choice in many of the world's largest copper mines. Containing very low levels of aromatics, it features:

- excellent phase separation
- consistent quality and low evaporation
- significant worker diluent exposure risk reduction, with an occupational exposure limit up to 3 times higher than traditional kerosene type diluents

Escaid 115 and Escaid 120 fluids offer all the benefits of Escaid 110 fluid with even higher flash points / lower vapor pressures for:

- reduced fire risk
- reduced diluent evaporative losses

#### features

- range of volatilities and chemical types
- high to very high flash points
- narrow distillation ranges
- low viscosities
- low pour points
- high chemical and thermal stability

### benefits

- reduced diluent evaporation losses
- tailored extraction solutions
- required extractant solvency
- fast phase disengagement
- no compromises on crud formation
- reduced fire risk (high flash grades)
- improved worker protection and comfort
- · consistent performance over time

Key properties*	Escaid 110 fluid <sup>(2)</sup>	Escaid 115 fluid <sup>(2)</sup>	Escaid 120 fluid <sup>(2)</sup>
Aromatics content (wt%)	0.2	0.2	0.4
Occupational Exposure Limit (OEL) (ppm)	1200	1200	1200
Initial boiling point (°C)	208	227	248
Dry point (°C)	236	253	265
Flash point (°C)	82	96	114
Viscosity at 40°C/104°F (cSt)	1.71	2.05	2.54
Vapor pressure at 20°C (mm Hg)	0.10	0.03	0.007

<sup>\*</sup> All data provided are typicals. Test methods available on request.

<sup>(2)</sup> Product origin: US - Baytown plant.

# Escaid<sup>™</sup> fluids are available globally, with grades that meet regional needs



ExxonMobil Chemical continues to develop the Escaid fluids portfolio to meet the developing needs of customers. Our global technical expertise, world wide production and distribution, provides superior support for customers development activities.

Our manufacturing sites		
Escaid 110 fluid	All sites	
Escaid 115 fluid	Baytown	
Escaid 120 fluid	Antwerp, Baytown	

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