

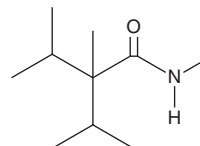
# PRODUCT INFORMATION



**WS-23**

Item No. 45818

**CAS Registry No.:** 51115-67-4  
**Formal Name:** N,2,3-trimethyl-2-(1-methylethyl)-butanamide  
**Synonym:** Methyl Diisopropyl Propionamide  
**MF:** C<sub>10</sub>H<sub>21</sub>NO  
**FW:** 171.3  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

WS-23 is supplied as a solid. A stock solution may be made by dissolving the WS-23 in the solvent of choice, which should be purged with an inert gas. WS-23 is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

## Description

WS-23 is a synthetic cooling compound.<sup>1</sup> It reduces actin polymerization and stability and inhibits mobility of BEAS-2B bronchial epithelial cells at 1.5-4.5 mg/ml. Aerosol administration of WS-23 (343 mg/m<sup>3</sup>) does not induce changes in respiratory symptoms, body weight or behavior and does not increase mortality in rats within 28 days of administration.<sup>2</sup> Formulations containing WS-23 have been used as cooling agents in cosmetics, skin creams and lotions, and electronic cigarette (e-cigarette) liquids.

## References

1. Wong, M., Martinez, T., Tran, M., *et al.* A synthetic coolant (WS-23) in disposable electronic cigarettes impairs cytoskeletal function in EpiAirway microtissues exposed at the air liquid interface. *Sci. Rep.* **13**(1), 16906 (2023).
2. Wu, Z.-H., Liu, Y.-S., Li, X.-D., *et al.* Acute and subacute inhalation toxicity assessment of WS-23 in Sprague-Dawley rats. *J. Appl. Toxicol.* **41**(11), 1826-1838 (2021).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM