

# PRODUCT INFORMATION



## Residual Solvents Mixture I (CRM)

Item No. 38279

**Supplied as:** A solution in N,N-dimethylacetamide

**Storage:** -20°C

**Stability:** Refer to the Certificate of Analysis

**Special conditions:** Vortex or sonicate before use

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

### Description and Data

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Residual solvents mixture 1 (CRM) (Item No. 38279) is a certified reference material mixture containing solvents that have been used in the extraction of cannabinoids from *Cannabis*, identified as residual solvents in *Cannabis* preparations, or included in routine threshold limits testing.<sup>1-6</sup> The mixture contains 1,2-dichloroethane, ethanol, o-xylene, and acetonitrile, among others. The mixture is supplied in an amber ampule in which the headspace has been purged with argon. It is designed for use in method development and as a reference standard for these substances during routine analytical checks using chromatography and mass spectrometry instrumentation. This product is intended for research and forensic applications.

#### 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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# PRODUCT INFORMATION



This mixture contains 24 solvents used in the extraction of cannabinoids from *Cannabis*. Included are:

Item No. 38279	Residual Solvents Mixture 1 (CRM)	
Item Name	CAS Number	Concentration (mg/ml)
1,2-Dichloroethane	107-06-2	1.0
Acetone	67-64-1	5.0
Acetonitrile	75-05-8	5.0
Benzene	71-43-2	1.0
Chloroform	67-66-3	1.0
Ethanol	64-17-5	5.0
Ethyl Acetate	141-78-6	5.0
Ethyl Ether	60-29-7	5.0
Heptane	142-82-5	5.0
n-Hexane	110-54-3	5.0
2,2-Dimethylbutane	75-83-2	5.0
2,3-Dimethylbutane	79-29-8	5.0
2-Methylpentane	107-83-5	5.0
3-Methylpentane	96-14-0	5.0
Isopropyl Alcohol	67-63-0	5.0
Methanol	67-56-1	5.0
Methylene Chloride	75-09-2	5.0
n-Pentane	109-66-0	5.0
2-Methylbutane	78-78-4	5.0
Trichloroethylene	79-01-6	1.0
Toluene	108-88-3	5.0
o-Xylene	95-47-6	5.0
m-Xylene	108-38-3	5.0
p-Xylene	106-42-3	5.0

## References

1. Suraev, A., Benson, M.J., Lewis, M., *et al.* Determination of contaminants in artisanal cannabis products used for childhood epilepsy in the Australian community: A sub-analysis of the 'PELICAN' study. *Epilepsy* **127:108496**, (2022).
2. Elzinga, S., Dominguez-Alonzo, J., Keledjian, R., *et al.* Acetone as artifact of analysis in terpene samples by HS-GC/MS. *Molecules* **27(18)**, 6037 (2022).
3. Fairbairn, J.W. and Liebmann, J.A. The extraction and estimation of the cannabinoids in *Cannabis sativa* L. and its products. *J. Pharm. Pharmacol.* **25(2)**, 150-155 (1973)
5. Liebling, J.P., Clarkson, N.J., Gibbs, B.W., *et al.* An analysis of over-the-counter cannabidiol products in the United Kingdom. *Cannabis Cannabinoid Res.* **7(2)**, 207-213 (2022).
5. Raber, J.C., Elzinga, S., and Kaplan, C. Understanding dabs: Contamination concerns of cannabis concentrates and cannabinoid transfer during the act of dabbing. *J. Toxicol. Sci.* **40(6)**, 797-803 (2015).
6. Viviers, H.J., Petzer, A., and Gordon, R. An assessment of solvent residue contaminants related to cannabis-based products in the South African market. *J. Cannabis Res.* **4(1)**, 19 (2022).

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