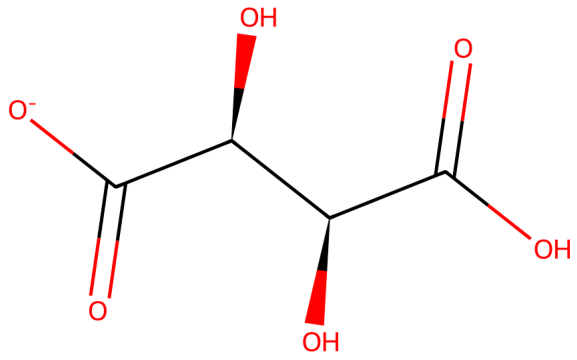
Thermal Hazard Assessment Memo

Tartaric Acid



Properties:

SMILES: O=C([O-])[C@@H](O)[C@H](O)C(=O)O

Name: Tartaric Acid

Formula: 4C, 5H, 6O

mp: to °C

Results:

High Energy Groups = 0

Explosive Groups = 0

Rule of Six = -4 Oxygen Balance = -48.30

Q_{DSC} T_{onset} T_{init}

Impact Sensitivity Explosive Propagation T_{D24}

<5 g	5 to 100 g	100 to 500 g	>500 g
Low Hazard	Low Hazard	Medium Hazard	Medium Hazard

Interpretation:

The Rule of Six[1] value imples (Not Explosive). The Oxygen Balance[1] suggests (High Risk). The Pfizer method[2] was used to calculate Impact Sensitivity and Explosive Propagation values, these suggest None and None.
The T_{D24} result gives the maximum safe operation temperature.

[1] Org. Proc. Res. Dev., 2011, 2341-2356
[2] Org. Proc. Res. Dev., 2021, 2117-2119