

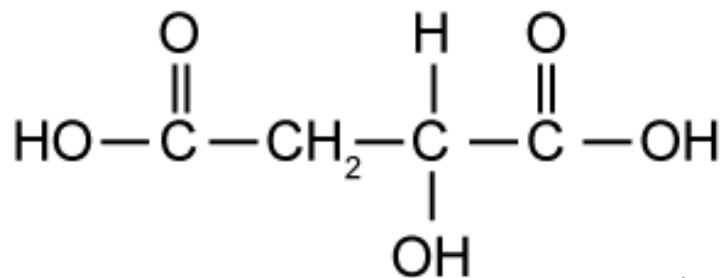
Karboksüülhapped

Neeme Katt

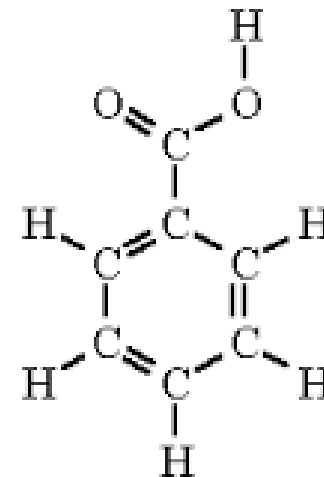
Karboksüülhapped



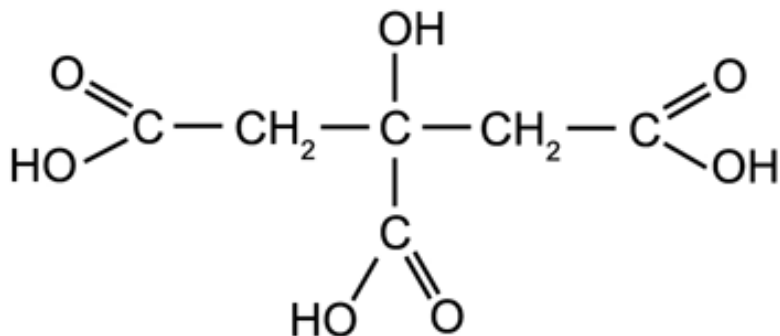
Karboksüülhapped



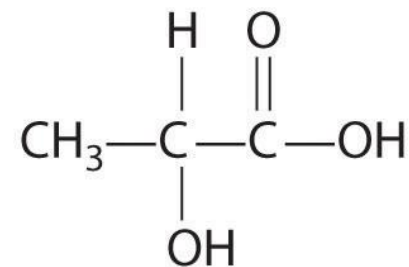
õunhape



bensoehape



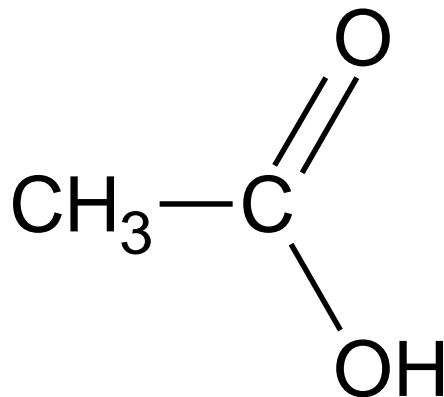
sidrunhape



piimhape

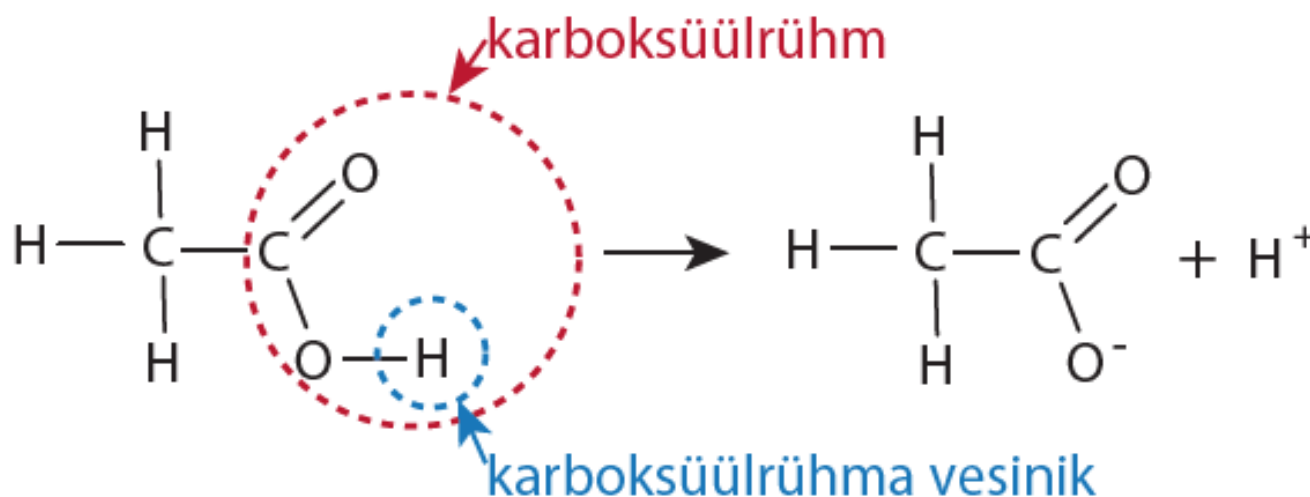
Karboksüülhapped

- Karboksüülhapped sisaldavad karboksüülrühma —COOH
- Etaanhape e äädikhape $\text{CH}_3 - \text{COOH}$



Karboksüülhapete happelisus

- Nõrgad happed
- Hapete üldised keemilised omadused



äädikhappe molekul \longrightarrow äädikhappe anioon + vesinikioon

Mineraalhapete ja karboksüülhapete reaktsioonide võrdlus

- $2\text{Na} + 2\text{HCl} \rightarrow 2\text{NaCl} + \text{H}_2$
- $2\text{Na} + 2\text{CH}_3\text{COOH} \rightarrow 2\text{CH}_3\text{COONa} + \text{H}_2$

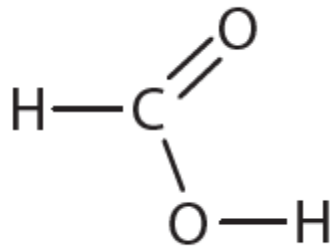
- $\text{BaO} + 2\text{HCl} \rightarrow \text{BaCl}_2 + \text{H}_2\text{O}$
- $\text{BaO} + 2\text{CH}_3\text{COOH} \rightarrow (\text{CH}_3\text{COO})_2\text{Ba} + \text{H}_2\text{O}$

Etaanhappe kasutamine

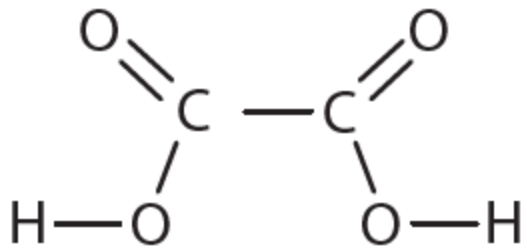
- toiduainete säilitamiseks (marineerimine)
- toidu maitsestamiseks (nt salatikastmed)
- katlakivi eemaldamiseks kodus



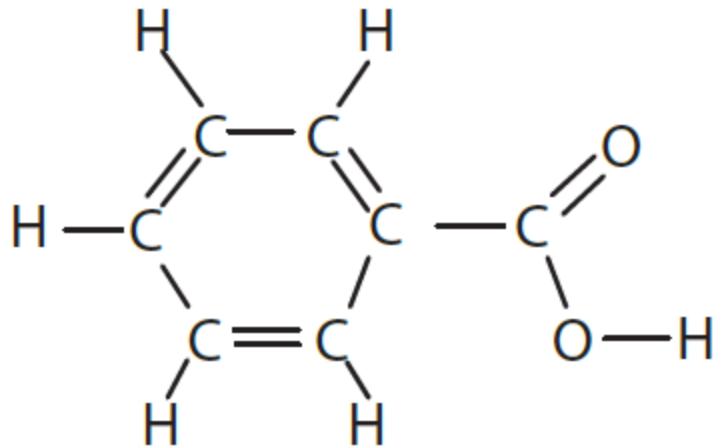
Metaanhape e sipelghape



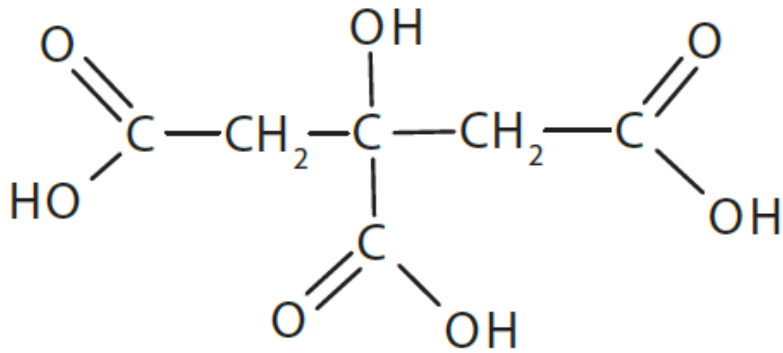
Etaandihape e oblikhape



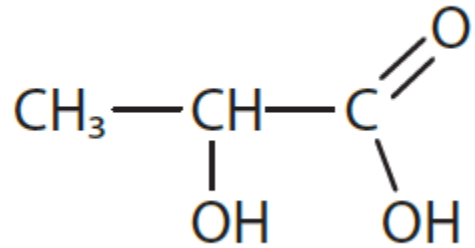
Bensoehape



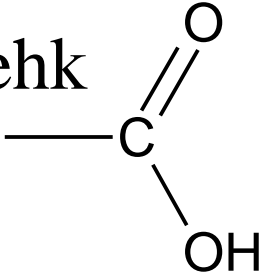
Sidrunhape



Piimhape



Aatomirühmitust OH sisaldavad ained

- Karboksüülhapped – karboksüülrühm —COOH ehk 
 - **Happelised**, sest vesilahuses eraldub H^+
 - $\text{CH}_3\text{—COOH}$
- Hüdroksiidid – hüdroksiid**ioon** OH^-
 - **Aluselised**, sest vesilahuses eraldub OH^-
 - NaOH
- Alkoholid – hüdroksüülrühm —OH
 - **Neutraalsed**, sest vesilahuses ei eraldu H^+ või OH^-
 - $\text{CH}_3\text{—CH}_2\text{—OH}$