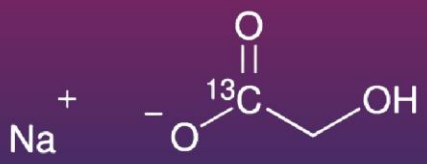
# Sodium Starch Glycolate (SSG)



PRODUCT IN FOCUS

EXSYN® ESSENTIAL CHEMISTRY

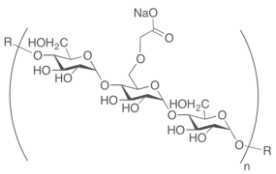
# Sodium Starch Glycolate USP/EP

## INTRODUCTION

Sodium Starch Glycolate (SSG) is a very fine free flowing powder that is white or off white in color and has almost no odor. Its property of insolubility is remarkable, with complete insolubility in most organic solvents, and even in water. It is a sodium salt of carboxyl ether of starch and is appreciated for its stability and binding properties.

## MANUFACTURE

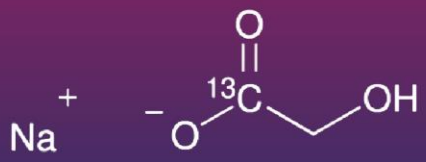
It is manufactured by chemical modification of starch, i.e., carboxymethylation to enhance hydrophilicity and cross-linking to reduce solubility.

| | |
|---|---|
| **Synonym** | Sodium carboxymethyl starch<br>Starch carboxymethyl ether sodium salt |
| **CAS no.** | 9063-38-1 |
| **EINECS No** | 618-597-7 |
| **Molecular formula** | $(C_2H_4O_3)x\cdot(Na)x$ |
| **Molecular weight** | 515.69 g/mol |
| **Structure** |  |

## APPLICATIONS

- Sodium Starch Glycolate is used as rapid disintegrant that releases the medicine immediately when in contact with water.
- It can be used in a direct-compression as well as wet-granulation process.
- SSG can also be used as a suspending vehicle.
- It acts as a dissolution enhancing agent.
- SSG is used as a food stabilizer and as an anti-ageing agent for bread and in manufacturing of ice-creams.
- This is used as a component for manufacturing processes in pharmaceuticals, food, textiles, paper and adhesives.
- Plant Protection, Biocontrol

# Sodium Starch Glycolate (SSG)



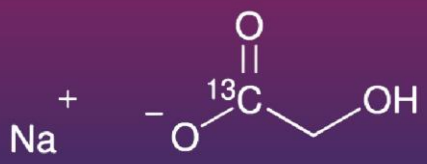

## PRODUCT IN FOCUS

EXSYN®
ESSENTIAL CHEMISTRY

### SPECIFICATIONS… TYPE A (Potato)

| Test | Unit | Specification |
|---|---|---|
| Appearance | - | White relatively free flowing powder |
| Identification | | |
| A. Spectroscopic Identification test | - | The IR spectrum is concordant with reference spectrum of sodium starch glycollate |
| B. Chemical test | - | An acidified solution of it is colored blue to violet |
| C. Chemical test | - | A dense precipitate is formed |
| D. Chemical test | - | Imparts intense yellow color to non-luminious Flame |
| Assay | % | 2.8 – 4.2 |
| Sodium chloride | % | NMT 7.0 |
| Sodium glycollate | % | NMT 2.0 |
| Iron | ppm | NMT 20 |
| Microbial contamination | - | 1.0 g is free from Escherichia coli and 10.0 g is free from *Salmonellae* and *Escherichia coli*. |
| Total Aerobic microbial count | cfu/g | NMT 1000 |
| Total yeast and mold count | cfu/g | NMT 100 |
| Objectionable pathogens | - | *Staphylococcus aureus* and *Pseudomonas aeruginosa* absent in 1g |

# Sodium Starch Glycolate (SSG)




## PRODUCT IN FOCUS

EXSYN®
ESSENTIAL CHEMISTRY

### SPECIFICATIONS… TYPE A (Potato)

…continued

| Test | Unit | Specification |
|---|---|---|
| pH | - | 5.5 – 7.5 |
| Loss on drying (at 130 °C) for 90 min | % w/w | NMT 10.0 |
| Particle size | | |
| Less than 63µ | % | NLT 95 |
| Less than 125µ | % | NLT 100 |
| Elemental Impurities | - | As per USP/NF |

*Material complies with specifications of BP, EP, & USP/NF*

### PACKING
25 kg HDPE drum

### STORAGE
Preserve in well closed containers, preferably protected from wide variations in temperature and humidity which may cause caking.

### CERTIFICATION
WHO–GMP

### REACH Status
Not registered

No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.