

## SAFETY DATA SHEET Mono Sodium Glutamate

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## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Product:** Mono Sodium Glutamate Food Grade Fine

Company name: Nexchem Ltd

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## 2. HAZARDS IDENTIFICATION

**CAS No.:** 142-47-2 **EINECS No.:** 205-538-1

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Main Hazards: No occupational limits established by OSHA ACGIH or NIOSH

Inhalation (acute/chronic exposure): No effects known in humans Skin Contact (acute/chronic exposure): No effects known in humans

**Eye Contact:** 

Acute Exposure: Particles in the eye may cause lacrimation as any dust.

Chronic Exposure: No effects known in humans

## 4. FIRST AID MEASURES

First Aid – Eyes: Wash eyes with large amounts of water.

First Aid – Skin: N/a.

First Aid – Ingestion: Treat symptomatically and supportively. Get medical attention immediately.

If vomiting occurs, keep head lower than hips to prevent aspiration.

**First Aid – Inhalation:** No specific antidote. Treat symptomatically and supportively.

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## 5. FIRE-FIGHTING MEASURES

**Fire And Explosion Hazard:** Negligible fire hazard when exposed to heat or flame.

Extinguishing Media: Dry chemical powder, carbon dioxide, halon, water spray or standard foam.

For larger fires, use water spray, fog or standard foam.

Special Hazards of Product: Thermal decomposition products may include toxic oxides of Nitrogen, Carbon Monoxide and

Carbon Dioxide.

Fire Fighting: No acute hazards. Move container from fire area if possible. Avoid breathing vapours &

dusts.

**Protection for Fire Fighting:** Self-contained breathing apparatus with full face-piece operated in pressure demand or other

positive pressure demand.

## **6. ACCIDENTAL RELEASE MEASURES**

Spillage in Solution: For small spills, take up with sand or other absorbent material and place into containers for

later disposal.

For larger spills, dike far ahead of spill for later disposal.

For spills it is also possible to swill down if cleaning water can be collected in draining off system and sent to a waste water treatment station (monosodium glutamate is easily

biodegradable).

**In Solid Form:** Sweep up (e.g. shovel preferably made up of plastic and broom), place in a bag and hold for

waste disposal.

Clean shovel and broom after usage. May be swilled down as in solution.

During the operation it is advised to wear splash proof or dust resistant safety goggles.

#### 7. HANDLING AND STORAGE

**Storage:** Store at normal temperature. Avoid humidity or excessive temperatures.

Can be kept in the closed original package for 3 years, except Powder A and Powder N

only for one year.

After opening of the package, must be used rapidly.

Must not be stored in the vicinity of aromatic materials.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation As for any material which may generate dusts during handling or mixing, provide local mechanical exhaust or general dilution systems:

**Respirator:** If appropriate ventilation equipment of the local: none

High levels of dust generated: paper mask or self-contained breathing apparatus

(NIOSH/MSHA approved).

Clothing: No particular clothing

Gloves: Not necessary

**Eye Protection:** Not necessary if appropriate ventilation of the local is supplied.

High levels of dust generated: Dust resistant goggles advised.

[cont...]

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystals (orthorhombic system)

Colour: White

Odour: Practically odourless

Taste: Characteristic

**Solubility in Water:** Very soluble (up to 60-65g/100 ml water at 20-25°C)

Solubility in Alcohol: Sparingly soluble

#### 10. STABILITY AND REACTIVITY

Melting/Boiling Point: Crystallised amino acids have a fairly high melting or decomposition temperature, usually above

200°C.

**Sublimation Point:** >200°C Decomposition Point >247°C.

Loss of Crystallisation Water: Begins at 127°C.

#### 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Monosodium Glutamate is the sodium salt of L-Glutamic Acid. L-Glutamic Acid is an amino acid.

Amino Acids are the basic components of proteins forming living organisms

Glutamic Acid is obtained through fermentation from an agricultural substrate sugar.

LD50 (lethal doses for 50% of animals tested.) (LD50 g/kg bw.)

			Route	Male	Female
Mice			PO	17.7	16.4
			SC	8.2	8.4
	IP 6.6 5.7	IV.3.7.3.3			
Rats			PO	17.3	15.8
			SC	5.6	6.4
	IP 5.7 4.8	IV.3.3.3.3			

Mutagenicity: No mutagenicity measured by Ames test (Ishida 1984), chromosome aberration tests using a

Chinese hamster fibroblast cell line (Ishidate 1984), sister chromatic exchanges in cultural mammalian cells (Lee 1987) and by host mediated assay (Industrial Bio-Test Laboratories

1973).

**Chronic Toxicity:** There is no evidence that MSG is carcinogenic as measured by tumour incidence in mice and

rats throughout their life.

#### 12. ECOLOGICAL INFORMATION

Environmental Hazard: No data

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## 13. DISPOSAL CONSIDERATIONS

**Product Disposal:** Monosodium L-Glutamate is an amino acid salt.

It is highly biodegradable (nitrogen and/or carbon sources for microorganisms).

For example: in case of spill or leak, monosodium L glutamate may dissolved in water and

degraded in a waste water treatment station.

In the solid state, dissolved or mixed with a combustible material (or solvent) and burnt in a

chemical incinerator equipped with an after burner and scrubber.

## 14. TRANSPORT INFORMATION

Not regulated.

## 15. REGULATORY INFORMATION

Note:

The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

## **16. OTHER INFORMATION**

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.