西安康诺化工有限公司
KONO CHEM Co., LTD

**MATERIAL SAFETY DATA SHEET**

Revision Date : 2012-12-1

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

**Product name:** Glycyrrhizic acid

**Supplier:** KONO CHEM Co., LTD
No 11 Daqing Road
Xi'an
China

**Tel:** +86-29-88598270

## 2.COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS Number | ACGIH Exposure Limits: | OSHA Exposure Limits: |
|---|---|---|---|
| Glycyrrhizic acid | 1405-86-3 | None | None |

## 3.HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** May cause skin irritation and/or dermatitis

**Principle routes of exposure:** Skin
**Inhalation:** May cause irritation of respiratory tract
**Ingestion:** May be harmful if swallowed
**Skin contact:** May cause allergic skin reaction
**Eye contact:** Avoid contact with eyes

**Statements of hazard** MAY CAUSE ALLERGIC SKIN REACTION.
**Statements of Spill of Leak Label** Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

## 4. FIRST AID MEASURES

| | |
|---|---|
| **General advice:** | In the case of accident or if you fell unwell, seek medical advice immediately (show the label where possible). |
| **Inhalation:** | Move to fresh air, call a physician immediately. |
| **Skin contact:** | Rinse immediately with plenty of water and seek medical advice |
| **Ingestion:** | Do not induce vomiting without medical advice. |
| **Eye contact:** | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| **Protection of first – aiders:** | No information available |
| **Medical conditions aggravated by exposure:** | None known |

## 5.FIRE-FIGHTING MEASURES

| | |
|---|---|
| **Suitable extinguishing media:** | Use dry chemical, CO2, water spray or “alcohol” foam |
| **Specific hazards:** | Burning produces irritant fumes. |
| **Special protective equipment for firefighters:** | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |
| **Flash point:** | Not determined |
| **Autoignition temperature:** | Not determined |
| **NFPA rating** | |

| | |
|---|---|
| NFPA Health: | 1 |
| NFPA Flammability: | 1 |
| NFPA Reactivity: | 0 |

## 6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| **Personal precautions:** | Use personal protective equipment. |
| **Environmental precautions:** | Prevent product from entering drains. |
| **Methods for cleaning up:** | Sweep up and shovel into suitable containers for disposal |

## 7. HANDLING AND STORAGE

**Storage:**

Room temperature

| | |
|---|---|
| **Handling:** | Use only in area provided with appropriate exhaust ventilation. |
| **Safe handling advice:** | Wear personal protective equipment. |
| **Incompatible products:** | Oxidising and spontaneously flammable products |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|---|---|
| **Engineering measures:** | Ensure adequate ventilation. |
| **Respiratory protection:** | Breathing apparatus only if aerosol or dust is formed. |
| **Skin and body protection:** | Usual safety precautions while handling the product will provide adequate protection against this potential effect. |
| **Eye protection:** | Safety glasses with side-shields |
| **Hand protection:** | PVC or other plastic material gloves |
| **Hygiene measures:** | Handle in accordance with good industrial hygiene and safety practice. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Melting point/range:** | No Data available at this time. |
| **Boiling point/range:** | No Data available at this time. |
| **Density:** | No data available |
| **Vapor pressure:** | No data available |
| **Evaporation rate:** | No data available |
| **Vapor density:** | No data available |
| **Solubility (in water):** | No data available |
| **Flash point:** | Not determined |
| **Autoignition temperature:** | Not determined |

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Polymerization:** None under normal processing.

**Hazardous decomposition products:** Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides.

**Materials to avoid:** Strong oxidising agents.

**Conditions to avoid:** Exposure to air or moisture over prolonged periods.

## 11. TOXICOLOGICAL INFORMATION

**Product information**

**Acute toxicity**

| Components | RTECS Number: | Selected LD50s and LC50s |
|---|---|---|
| Glycyrrhizic acid | Not Available | Not Determined |

**Chronic toxicity:** Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

**Local effects:** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Specific effects:** May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

**Primary irritation:** No data is available on the product itself.

**Carcingenic effects:** No data is available on the product itself.

**Mutagenic effects:** No data is available on the product itself.

**Reproductive toxicity:** No data is available on the product itself.

## 12. ECOLOGICAL INFORMATION

**Mobility:** No data available

**Bioaccumulation:** No data available

**Ecotoxicity effects:** No data available

**Aquatic toxicity:** May cause long-term adverse effects in the aquatic environment.

| Components | U.S. DOT –Appendix B – Marine Pollutants | U.S. DOT –Appendix B – Severe Marine Pollutants | United Kingdom – The red List: |
|---|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed | Not Listed |

| Components | Germany VCI (WGK) | World Health Organization (WHO) – Drinking Water | Ecotoxicity – Fish Species Data |
|---|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed | Not Listed |

| Components | Ecotoxicity – Freshwater Algae Data | Ecotoxicity – Microtox Data | Ecotoxicity – Water Flea Data |
|---|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed | Not Listed |

| Components | EPA – ATSDR Priority List | EPA – HPV Challenge Program Chemical List | California – Priority Toxic Pollutants |
|---|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed | Not Listed |

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues/unused products:** Waste disposal must be in accordance with appropriate Federal, State and local regulations. This product, if unaltered by use, may be disposed of treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

**Contaminated packaging:** Do not re-use empty containers.

## 14. TRANSPORT INFFORMATION

**UN/Id No:** Not regulated

**DOT**

**Proper shipping name:** Not Regulated

**TGD(Canada)**

**WHMIS hazard class:** Non - controlled

**IMDG/IMO**

**IMDG – Hazard Classifications** Not Applicable

| Components | U.S. DOT –Appendix A Table 1 – Reportable Quantities |
|---|---|
| Glycyrrhizic acid | Not Listed |

| Components | U.S. DOT –Appendix B – Marine Pollutants | U.S. DOT –Appendix B – Severe Marine Pollutants |
|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed |

**IMO – labels:**

## 15. REGULATORY INFOTMATION

**International Inventories**

| Components | Inventory – United States TSCA – Sect.8(b) | Canada DSL Inventory List - |
|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed |

**U.S. regulations:**

| Components | California proposition 65 - | Massachusetts Right to Know List: | New Jersey Right to Know List: | Pennsylvania Right to Know List: |
|---|---|---|---|---|
| Glycyrrhizic acid | NA | Not Listed | Not listed | Not listed |

| Components | Florida substance List: | Rhode Island Right to Know List: | Illinois – Toxic Air Contaminants | Connecticut – Hazardous Air |
|---|---|---|---|---|
| Glycyrrhizic acid | Not Listed | Not Listed | Not listed | Not listed |

| Components | SSARA 313 Emission reporting/Toxic Release of Chemicals | CERCLA/SARA – Section 302 Extremely Haz | NTP: | IARC: |
|---|---|---|---|---|
| Glycyrrhizic acid | | Not Listed | Not listed | Not listed |

## 16. OTHER INFORMATION

**Prepared by:** Health & Safety

**Disclaimer:** The information and recommendations contained herein are based upon tests believed to be reliable. However, KONO does not guarantee the accuracy or completeness NOR SHALL ANY OF THIS INFORMATION

CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOOD, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage maybe required. KONO assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of safety data sheet**