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: Hydroxyethyl Starch

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:
Hydroxyethyl Starch	9005-27-0	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
Hydroxyethyl Starch	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:
Hydroxyethyl Starch	Not Listed	Not Listed	Not Listed

Components	Germany VCI (WGK)	World Health Organization (WHO) – Drinking Water	Ecotoxicity – Fish Species Data
Hydroxyethyl Starch	Not Listed	Not Listed	Not Listed

Components	Ecotoxicity –	Ecotoxicity – Microtox	Ecotoxicity – Water Flea

	Freshwater Algae Data	Data	Data
Hydroxyethyl Starch	Not Listed	Not Listed	Not Listed

Components	EPA – ATSDR Priority List	EPA – HPV Challenge Program Chemical List	California – Priority Toxic Pollutants
Hydroxyethyl Starch	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
Hydroxyethyl Starch	Not Listed

Components	U.S. DOT –Appendix B – Marine Pollutants	U.S. DOT –Appendix B – Severe Marine Pollutants
Hydroxyethyl Starch	Not Listed	Not Listed

IMO – labels:

15. REGULATORY INFOTMATION

International Inventories

Components	Inventory – United States TSCA – Sect.8(b)	Canada DSL Inventory List -
Hydroxyethyl Starch	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:
Hydroxyethyl Starch	NA	Not Listed	Not listed	Not listed

Components	Florida substance List:	Rhode Island Right to Know List:	Illinois – Toxic Air Contaminants	Connecticut – Hazardous Air
Hydroxyethyl Starch	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:
Hydroxyethyl Starch		Not Listed	Not listed	Not listed

16. OTHER INFORMATION

Prepared by: Health & Safety

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End of safety data sheet