

MATERIAL SAFETY DATA SHEET

SECTION 1 CEMICAL PRODUCTS & COMPANY IDENTIFICATION

Product Name : Croscarmellose Sodium
: KICCOLATE ND-2HS
: KICCOLATE ND-200

Synonym : A cross-linked polymer of Carboxymethylcellulose sodium

Chemical Family : Cellulose Ether

Manufacturer : NICHIRIN CHEMICAL INDUSTRIES LTD.

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SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Name : A cross-linked polymer of Carboxymethylcellulose sodium

CAS No. : 74811-65-7

Formula : $[C_6H_7O_2(OH)_w(OCH_2COONa)_x(OCH_2COOH)_y(OCH_2COO)_z]_n$

Ingredients & Composition : Croscarmellose Sodium : more than 90.0%
: Water : not more than 10.0%

SECTION 3 HAZARDS IDENTIFICATION

Major Health Hazards : No significant target effects reported.

Physical Hazards : Dust/air mixtures may ignite or explode.

Potential Health Effects : Expected to be minimally irritating to the eyes and skin.

SECTION 4 FIRST AID MEASURES

Inhalation : Remove to fresh air. Use a bag valve mask or similar device to perform artificial respiration if needed. If breathing difficulty or discomfort occurs and persists, get medical attention.

Skin Contact : Wash with plenty of soap and water. Get medical attention, if needed.

Eye Contact : Wash eyes immediately with large amounts of water. Get medical attention, if needed.

Ingestion : Drink plenty of water. If any discomfort persists, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point : Currently unknown

Autoignition Temperature : Not available.

Fire and Explosion Hazard : Slight fire hazard. Dust/air mixtures may ignite or explode.

Extinguishing Media : Water spray, Carbon dioxide, Dry chemical powder

Fire Fighting : Move container from fire area if it can be done without risk. Use extinguishing agents appropriate for surrounding fire. Do not breathe smoke, gases or vapors generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Release Notes : Collect spilled material in appropriate container for disposal.
: Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

SECTION 7 HANDLING AND STORAGE

Release Notes : Keep separated from incompatible substances.
: Keep in closed containers and protected from direct sunshine.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits : Currently unknown

Eye : Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Respirator	: Whenever dust, in the breathing zone, cannot be controlled with ventilation, the workers should wear respirators.
Gloves	: Wear appropriate gloves.
Protective Clothing	: Special clothing are not required.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Description	: solid
Appearance	: White to Yellowish-white powder (free-flowing powder)
Odor	: Odorless
pH	: 5.0–7.0 (1% solids dispersion)
Boiling Point	: Not applicable
Melting Point	: Not applicable
Vapor Pressure	: Not applicable
Vapor Density	: Not applicable
Water Solubility	: 1–10%
Solvent Solubility	: Insoluble alcohol, ether, organic solvents
Evaporation Rate	: Not applicable

SECTION 10 STABILITY AND REACTIVITY

Conditions to avoid	: Avoid heat, flames, sparks and other sources of ignition.
	: Avoid contact with incompatible materials.
Strong Oxidizers	: Fire and explosion hazard.
Polymerization	: Will not polymerize.
Stability	: Stable

SECTION 11 TOXICOLOGICAL INFORMATION

Toxicity Data	: Oral (rat) LD50	>2000 mg/kg
Acute Toxicity Level	: Currently unknown	

Chronic toxicity : No data available
Skin Contact : Minimally irritating
Eye Contact : Dusts may cause slight irritation

SECTION 12 ECOLOGICAL INFORMATION

No significant effects are expected.

SECTION 13 DISPOSAL CONSIDERATIONS

No special disposal methods are suggested. Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

No classification assigned.

SECTION 15 REGULATORY INFORMATION

KICCOLATE ND-2HS and KICCOLATE ND-200 are submitted as Croscarmellose Sodium by JP, USP/NF, Ph.Eur.,.

SECTION 16 OTHER INFORMATION

The above information is based on data available to us and is believed to be correct. However, NO WARRANTY is expressed or to be implied regarding the accuracy of this information, the results to be obtained from the use thereof, or the hazards connected with the use of material. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of its use. This information is furnished upon the condition that the persons receiving it shall make their own determinations of the effects, properties and protections, which pertain to their particular conditions.