

SPRU PRODUCTS PVT LTD MATERIAL SAFETY DATA SHEET

Sodium Hypochlorite 4 % (SYFO Bleach)

1.CHEMICAL PRODUCT AND	O COMPANYIDENTIFICATION
Company Identification:	SPRU Products Pvt Ltd
	1 st floor Ories Tower,Plot no 6,
	Opp. New High COURT, Faizabad Road
	Lucknow-226028
	Help line-6387240167
Product identifier:	"SYFO Bleach"
Pack Size:	50 ml, 500 ml, 1 Liter, 5 Liters.
Synonyms:	Chlorine bleach, Soda bleach, Alkaline sodium hypochlorite solution
Product Use:	Process agent, Universal disinfectant, Bleaching agent etc.
EPA Registration Number:	Not Available
Recommended use:	Drains, Waste Pipes, Toilets and Urinals, Bath, Basin/Sink, Floor, White fabric wash,
	Disinfecting & stain removal. It is also used in hospitals, hotels, breweries, swimming pools
	etc
Emergency telephone number:	For Medical Emergencies, call: -
	For Transportation Emergencies, call: -
	Customer Help Line: - 05227118086

2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

EMERGENCY OVERVIEW:

Color: Colorless to yellow Physical State: Liquid Appearance: Clear Odor: Characteristic bleach odor Signal Word: DANGER

MAJOR HEALTH HAZARDS: CORROSIVE. CAUSES SERIOUS EYE DAMAGE. CAUSES SEVERE SKIN BURNS.CAUSES DAMAGE TO RESPIRATORY SYSTEM WHEN INHALED. TOXIC IF SWALLOWED. MAY CAUSEDAMAGE TO GASTROINTESTINAL TRACT WHEN SWALLOWED.

PHYSICAL HAZARDS: CORROSIVE TO METALS.

AQUATIC TOXICITY: Toxic to fish and aquatic organisms.

PRECAUTIONARY STATEMENTS: Do not breathe mist, vapors, or spray. Do not taste or swallow. Avoid contactwith skin, eyes and clothing. Wash thoroughly after handling. Wear protective gloves, protective clothing, eye, andface protection. Do not eat, drink or smoke when using this product. Keep only in original container. Avoid release tothe environment. Store in a secure manner. Store in corrosive resistant container with a resistant inner liner.

GHS CLASSIFICATION:

GHS: PHYSICAL HAZARDS:	Corrosive to Metals
GHS: CONTACT HAZARD - SKIN:	Category 1C - Causes severe skin burns and eye damage
GHS: CONTACT HAZARD - EYE:	Category 1 - Causes serious eye damage
GHS: TARGET ORGAN TOXICITY (SINGLE EXPOSURE):	Category 1 - Causes damage to: Respiratory System
GHS: CARCINOGENICITY:	Not classified as a carcinogen per GHS criteria. This product is not
	classified as a carcinogen by NTP, IARC, or OSHA

UNKNOWN ACUTE TOXICITY: Listed below.

Unknown Acute Dermal Toxicity:100% of this product consists of ingredient(s) of unknown acute dermal toxicity. **Unknown Acute Inhalation Toxicity:**100% of this product consists of ingredient(s) of unknown acute inhalation toxicity. **GHS SYMBOL:** Corrosion, Health hazards



GHS SIGNAL WORD: DANGER

GHS HAZARD STATEMENTS:

GHS - Physical Hazard Statement(s)

May be corrosive to metals

GHS - Health Hazard Statement(s)

- Causes severe skin burns and eye damage
- Causes serious eye damage
- Causes damage to organs (Respiratory System)

GHS - Precautionary Statement(s) - Prevention

- Do not breathe mist, vapors, or spray
- Wear protective gloves, protective clothing, eye, and face protection
- Wash thoroughly after handling
- Do not eat, drink or smoke when using this product
- Keep only in original container

GHS - Precautionary Statement(s) - Response

• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do Continue rinsing

- IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF INHALED: Remove person to fresh air and keep comfortable for breathing
- Immediately call a POISON CENTER or doctor/physician
- Specific treatment (see First Aid information on product label and/or Section 4 of the SDS)
- Wash contaminated clothing before reuse
- IF exposed: Call a POISON CENTER or doctor/physician

Absorb spillage to prevent material damage

GHS - Precautionary Statement(s) - Storage

• Store in a secure manner

• Store in corrosive resistant container with a resistant inner liner

GHS - Precautionary Statement(s) - Disposal

• Dispose of contents and container in accordance with applicable local, regional, national, and/or

internationalregulations

Physical Hazards Not Otherwise Classified

Contact with acids liberates toxic gas

Health Hazards Not Otherwise Classified

• Contact with acids liberates toxic gas

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Chlorine bleach, Soda bleach, Alkaline sodium hypochlorite solution.				
Component	Percent [%]	CAS Number		
Water	95-97	7732-18-5		
Sodium Hypochlorite	3.3 Minimum	7681-52-9		
Sodium Hydroxide	0.3 Minimum	1310-73-2		
Sodium Chlorate	0.2 Maximum	7775-09-9		
Sodium Chloride	0.4 Maximum	7647-14-5		

4. FIRST AID MEASURES

INHALATION: If inhalation of mists, vapors, or spray occurs and adverse effects result, remove to uncontaminated area. Evaluate ABC's (is Airway constricted, is Breathing occurring, and is blood Circulating) and treat symptomatically. GET MEDICAL ATTENTION IMMEDIATELY. There is no specific antidote, treat symptomatically.

SKIN CONTACT: Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTIONIMMEDIATELY. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately contact a physician. Immediate and thorough decontamination of the eye is essential followed by ophthalmological assessment. Follow protocol for corrosive injury.

INGESTION: If swallowed, DO NOT INDUCE VOMITING. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious or convulsive person. GET MEDICAL ATTENTION IMMEDIATELY.

Most Important Symptoms/Effects (Acute and Delayed):

Acute Symptoms/Effects: Listed below.

Inhalation (Breathing): Respiratory System Effects: Inhalation exposure may cause irritation, redness of upper and lower airways, coughing, laryngospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure.

Skin: Skin Corrosion. Skin exposure to gas or liquid may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third-degree burns.

Eye: Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.

Ingestion (Swallowing): Gastrointestinal System Effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

Delayed Symptoms/Effects:

- Repeated and prolonged skin contact may cause a dermatitis

Interaction with Other Chemicals Which Enhance Toxicity: Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes.

Medical Conditions Aggravated by Exposure: May aggravate preexisting conditions such as: Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin. Respiratory conditions including asthma and other breathing disorders.

Protection of First-Aiders: Protect yourself by avoiding contact with this material. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Do not ingest. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. At minimum, treating personnel should utilize PPE sufficient for prevention of blood borne pathogen transmission.

Notes to Physician: Treat as a corrosive due to the pH of this material. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. Probable mucosal damage may contraindicate the use of gastric lavage. There is no specific antidote. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation.

5. FIRE-FIGHTING MEASURES

Fire Hazard: May release toxic gases.

Suitable Extinguishing Media: - Sodium hypochlorite solutions do not burn. Extinguish fire using extinguishing agents suitable for the surrounding fire and not contraindicated for use with sodium hypochlorite. Cool exposed containers with water.

Unsuitable Extinguishing Media: - DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A: B: C agents), since an explosive compound can be formed.

Specific Hazards Arising from the Chemical: - Sodium hypochlorite decomposes when heated, giving off corrosive chlorine and hydrogen chloride. Solutions decompose when exposed to sunlight, giving off oxygen gas. However, the amount of oxygen produced is not sufficient to cause combustion. Explosive decomposition may occur under fire conditions and closed containers may rupture violently due to a rapid decomposition, if exposed to fire or excessive heat for a sufficient period of time.

Special Protective Equipment for Fire-Fighters: -Wear NIOSH-approved self-contained breathing apparatus and protective clothing. The decomposition products of sodium hypochlorite, such as chlorine and hydrogen chloride are extremely hazardous to health. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective equipment (Bunker Gear) will not provide adequate protection.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: - Avoid contact with skin, eyes and clothing. Avoid breathing fumes, vapor, mist, or spray. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS. Vacate poorly ventilated areas as soon as possible, and do not return until odors have dissipated. Evacuation of surrounding area may be necessary for large spills. Stay upwind and keep out of low areas. Consider evacuation of personnel located downwind. Refer to Section 7, Handling and Storage, for additional precautionary measures.

Methods and Materials for Containment and Cleaning Up: Remove sources of ignition. Stop leak if possible, without personal risk. Keep people away from and upwind of spill/leak. Evacuation of surrounding area may be necessary for large spills. Absorb spillage to prevent material damage. Absorb with inorganic absorbents. Liquid material may be removed with a vacuum truck. Shovel dried residue into suitable container. See Section 13, Disposal considerations, for additional information.

Environmental Precautions: - Keep out of water supplies and sewers. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Releases should be reported, if required, to appropriate agencies

7. Handling and Storage

Precautions for Safe Handling: -Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use only with adequate ventilation. Vacate poorly ventilated areas as soon as possible, and do not return until odors have dissipated.

Safe Storage Conditions: -Use only as directed & store in a cool and dry place away from sunlight. Avoid heat, flames, sparks and other sources of ignition. Do not freeze.

Incompatibilities/ Materials to Avoid: - Material is a strong oxidizing agent and should only be mixed with water. Mixing this product with chemicals (e.g.ammonia compounds, acids, detergents) or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucous membranes, Other materials to avoid include: most metals, peroxides, reducing agents, oxidizing agents

GHS: PHYSICAL HAZARDS:

- Corrosive to Metals

Physical Hazards Not Otherwise Classified

- Contact with acids liberates toxic gas

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Regulatory Exposure Limit(s): As listed below.				
	OSHA Final PEL		OSHA Final	
Chemical Name/Component	TWA	OSHA Final PEL STEL	PEL Ceiling	
Sodium Chlorate 7775-09-9				
Sodium Chloride 7647-14-5				
Sodium Hydroxide 1310-73-2	2 mg/m ³			

*OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit.

NON-REGULATORY EXPOSURE LIMIT(S): As listed below.

Component	ACGIH TWA	ACGIH STEL	ACGIH Ceiling	OSHA TWA (Vacated)	OSHA STEL (Vacated)	OSHA Ceiling (Vacated)
Sodium Hydroxide			2 mg/m ³			2 mg/m ³

-The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).

-The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

Component	OXY REL 8 hr TWA	OXY REL STEL	OXY REL Ceiling
Sodium hypochlorite		2 mg/m ³	
7681-52-9 (12.5%)			

ENGINEERING CONTROLS: Use closed systems when possible. Provide local exhaust ventilation where vapor or mist may be generated. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Wear splash resistant safety goggles with a face-shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and Body Protection: Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed, then discarded or laundered.

Hand Protection: Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Protective Material Types:

Natural rubber, Neoprene, Nitrile, Polyvinyl chloride (PVC)

Respiratory Protection: A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. Acid gas cartridges may be required if decomposition products are present. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES	
Physical State:	Liquid
Appearance:	Clear
Color:	Greenish to Light Yellowish/ Colorless to yellow
Odor:	Light Chlorine Like/Characteristic bleach odor
Odor Threshold [ppm]:	0.3 ppm (0.9 mg/m3).
Decomposition Temperature:	> 35 °C; 96 - 120 °C at 1013 hPa,/ 1 atmosphere (boiling point).
Boiling Point/Range:	230 °F (110 °C)
Freezing Point/Range:	-3 to -14 °F (-19.4 to -25.6 °C).
Melting Point/Range:	Not applicable to liquids
Vapor Pressure:	No data available
Vapor Density (air=1):	No data available
Relative Density/Specific Gravity (water=1):	1.06 - 1.07
Density:	9.9 - 10.5 lb/gal
Water Solubility:	100%
pH:	10-13
Volatility:	No data available
Evaporation Rate (ether=1):	No data available
Partition Coefficient (n-octanol/water):	No data available
Flash point:	Not flammable
Flammability (solid, gas):	Not applicable
Lower Flammability Level (air):	Not flammable
Upper Flammability Level (air):	Not flammable
Auto-ignition Temperature:	Not applicable
Viscosity:	No data available
Molecular Formula:	NaOCl
Molecular Weight:	74.5
Chemical Family:	Oxidizing Agent

Explosive Properties: -Pressure buildup in containers could result in an explosion when heated or in contact with acidic fumes. Vigorous reaction with oxidizable organic materials may result in a fire.

10. STABILITY AND REACTIVITY

Reactivity: - Sodium hypochlorite solution gives off oxygen when heated or when exposed to sunlight. However, the amount is small and will not cause or contribute to combustion. The solutions are, therefore, not considered to be oxidizing agents.

Stability: - Sodium hypochlorite solutions decompose slowly at normal temperatures releasing low concentrations of corrosive chlorine gas.

Possibility of Hazardous Reactions: - Hazardous polymerization will not occur.

Conditions to Avoid: - Heat, sunlight, acidic conditions, the presence of metals and other impurities.

Incompatible Materials: - Primary amines, aromatic amines, ammonium salts, phenylacetonitril, ammonia, urea, phenylacetonitrile, acids, metals, reducing agents, ethylene mine, methanol, formic acid, furfuraldehyde, ethandiol, sodium ethylene dioaminetet acetate solution.

11. TOXICOLOGICAL INFORMAT	ION			
TOXICITY DATA:				
PRODUCT TOXICITY DATA: HYPO-ALKALINE BLEACH SOLUTION				
LD50 Oral:	LD50 Dermal:	LC50 Inhalation:		
8910 mg/kg (Rat)	No data available	No data available		

COMPONENT TOXICITY DATA:

Note: The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given.

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Sodium Chloride	3000 mg/kg (Rat)	10 g/kg (Rabbit)	42 g/m3 (1 hr-Rat)
7647-14-5			

Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	10000 mg/kg (Rabbit)	Not listed
Sodium Hydroxide 1310-73-2	140-3400 mg/kg	1350 mg/kg (Rabbit)	Not listed
Sodium Chlorate 7775-09-9	LD50 = 4950 mg/kg (Rat) LD50 = 6250 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit) LD50 > 10 g/kg (Rabbit)	LC50 > 5.59 mg/L (Rat) 4.5 h LC50 > 28 g/m3 (Rat) 1 h

Potential acute health effects

Eye contact: Causes serious eye damage. Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn.

Skin contact: Skin contact may be irritating and corrosive. Can cause skin burns.

Inhalation: Inhalation may cause coughing, choking, irritation (possibly severe), chemical burns, shortness of breath, and pulmonary edema. Pulmonary edema may develop several hours after a severe acute exposure.

Ingestion: Not a likely route of exposure in occupational settings. If swallowed, may cause irritation, swelling, pain, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

SIGNS AND SYMPTOMS OF EXPOSURE: Listed below.

Inhalation (Breathing): Respiratory System Effects: Inhalation exposure may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, broncho constriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure.

Skin: Skin Corrosion. Skin exposure to gas or liquid may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third-degree burns.

Eye: Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eye.

). Lastian (Swallowing). (

Ingestion (Swallowing): Gastrointestinal System Effects: Exposure by ingestion may cause irritation, swelling, and perforation of upper and lower gastrointestinal tissues. Permanent scarring may occur.

TOXICITY:

Carefully controlled sensitization studies on animal have not resulted in any reproducible positive findings. Standard sensitization patch tests in healthy human volunteers show no potential to induce contact sensitization. In tests using rats and mice, there was no evidence of carcinogenicity.

Interaction with Other Chemicals Which Enhance Toxicity: Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes.

12. ECOLOGICAL INFORMATION

The toxicity and corrosively of this product is a function of concentration and the concentration's pH.

ECOTOXICOLOGICAL INFORMATION: Toxic to aquatic life. 96-hour LC50: fathead minnows: 0.090-5.9 mg/L, bluegill sunfish: 0.10-2.48 mg/L, shore crab: 1.418 mg/L, grass shrimp: 52.0 mg/L, scud: 0.145-4.0 mg/L, water flea: 2.1 mg/L.

ENVIRONMENTAL EFFECTS: Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers. May be an aesthetic nuisance due to color. Mammals and birds, exposed wildlife would be subject to skin irritation and burns due to the corrosive nature of this material

13. DISPOSAL CONSIDERATIONS

Disposal methods: -Dispose of in accordance with all applicable federal, state, and local regulations. Do not burn. Do not flush to surface water or sanitary sewer system. If pH of material is equal to or greater than a 12.0, the material is a RCRA Hazardous Waste D002, corrosive.

Contaminated Packaging: -Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

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7% is not regulated by TDG.
UN 1791
Hypochloritesolutions
8
III
8
Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.

Special Precautions:	Not Available
Transport in Bulk:	Not Available

MARITIME TRANSPORT (IMO / IMDG):		
UN NUMBER:	UN1791	
PROPER SHIPPING NAME:	Hypochlorite solutions HAZARD CLASS / DIVISION:	8
Packing Group:	III	
LABELING REQUIREMENTS:	8	
MARINE POLLUTANT:	Marine Pollutant (Sodium Hypochlorite)	

15. REGULATORY INFORMATION

OSHA CLASSIFICATION, 29 CFR §1900-1910:

Physical Hazards: Reactivity

Health Hazards: Acute - Skin Sensitizer, Corrosive

CERCLA AND SARA REGULATIONS, 40 CFR §300-373:

Reportable Quantity = 100 lb. **CERCLA Hazardous Material:** Yes

Title III Hazard Classifications: Acute - yes, Chronic - no, Fire - yes, Reactivity - yes & Sudden Release of Pressure - No. This product may be reportable under the requirements of 40 CFR §370.

SARA Extremely Hazardous Substance: No SARA Toxic Chemical: No CA Prop 65: No

FDA 21 CFR 178.1010: Yes, Approved as Sanitizer

NSF White book (former USDA Approval) Listing: Aqua Guard Chlorinating Sanitizer 10.5% - 3D, B1, B2,

D1, D2, G4, G7, GX, Q4, **Aqua Guard Bleach 12.5% -** 3D, B1, B2, D1, D2, G4, GX, Q4

EPA "CLEAN AIR ACT": This product does not contain nor is it manufactured with ozone depleting substances. It is not defined as a Hazardous Air Pollutant per 40 CFR 112.

EPA Pesticide: The 10.5% and 12.5% sodium hypochlorite products are registered with the U.S. EPA as a pesticide, as required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product for pesticide applications in a manner inconsistent with the FIFRA labeling.

16. OTHER INFORMATION

Prepared by: - SPRU Products Pvt Ltd 1st floor Ories Tower,Plot no 6, Opp. New High COURT, Faizabad Road Lucknow-226028 Help line- Help line-6387240167 www.spruproducts.in

References: -

OSHA Hazard CommunicationStandard (29 CFR 1910.1200). Suppliers' Material Safety Data Sheets and EPA Labeling Requirements Olin and Oxy Chem Sodium Hypochlorite Handbook Chlorine Institute Sodium Hypochlorite Pamphlet #96 Chlorine Institute Product Stewardship Bulletins for Sodium Hypochlorite

General Disclaimer: -

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet