MATERIAL SAFETY DATA SHEET

BAYDİS ULTRA 1200

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT IDENTIFICATION

Product Name	: BAYDİS ULTRA 1200
Chemical Name	: Not applicable
Synonyms	: Not applicable
Chemical Family	: Polyester polymer
Molecular Formula	: n.a.
Product Use	: Dispersing agent.
Cas Nº product	: n.a.i.

Classification : D2A product very toxic and other effect toxic and D2B (Skin and Eye Irritant)..

Read the entire MSDS for the complete hazard evaluation of this product

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Low hazard for usual industrial or commercial handling.
May cause central nervous system (CNS) depression, liver damage, kidney damage and metabolic acidosis.
Can decompose at high temperature forming toxic gases. Contents may developed pressure on prolonged exposure to heat.
Causes skin and eye irritation. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

POTENTIAL HEALTH EFFECTS

Inhalation: Vapor from warmed or heated material may cause nausea, dizziness and may cause irritation of mucous membranes..

Skin Contact: Brief contact causes irritation. Prolonged, confined (especially under the fingernails, under rings or wash bands) or repeated exposure may cause dermatitis.

Skin Absorption: Not likely to be absorbed through the skin.

Eye Contact: This product may cause mild, transient irritation.

Ingestion: Ingestion of large amounts may cause nausea, gastrointestinal upset and abdominal pain. This product causes irritation.

Other Health Effect: May cause liver damage, kidney damage, metabolic acidosis, central nervous system (CNS) depression, diarrhea, dizziness, nausea and vomiting, headache and death.
Headache, dizziness, drowsiness, nausea, vomiting and incoordination characterize CNS depression. Severe overexposures may lead to coma and possible death due to respiratory failure.
Liver damage is characterized by the loss of appetite, jaundice (yellowish skin colour), and occasional pain in the upper left-and side of abdomen. Signs and symptoms of kidney damage generally progress from oliguria, to blood in the urine, to total renal failure. Metabolic acidosis is a condition that describes a decreased pH and bicarbonate concentration in the body fluids.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Hazardous Ingredients	**CAS Nº**	**ACGIH TVL**	**%**
Diethylene Glycol	111-46-6	Not Listed	< 2
Diethanolamine.	111422	-	0.3 – 1

Poly (oxy-1,2-ethanediyl), alpha-(nonylphenol) – omega-hydroxy	9016-45-9	-	< 20

4. FIRST AID MEASURES

FIRST AID PROCEDURES

Inhalation: If respiratory problem arise, moves the victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CRP) if there is no breathing and no pulse. Obtain medical advice IMMEDIATELY.

Skin Contact: Start flushing while removing contaminated clothing. Wash affected areas thoroughly with soap and water. If irritation, redness, or a burning sensation develops and persists, obtain medical advice. Irritant.

Eye Contact: Immediately flush eyes thoroughly for 5 minutes with running water. Hold eyelids open during flushing. If irritation persists, repeat flushing and obtain medical attention. Irritant

Ingestion: Do not attempts to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give ½ to 1 glass of water to dilute material. IMMEDIATELY contact local Poison Control Centro. Vomiting should only be induced under the direction of a physician or a Poison Control Centro. If spontaneous vomiting occurs, have lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY transport victim to an emergency facility.

Medical conditions that may be aggravated by exposure to this product include preexisting liver and kidney disorders.

Note to Physicians: This product contains materials that may cause pneumonitis if aspirated. If ingestion has occurred less than 2 hours earlier, carry out careful gastric washing; use endotracheal cuff if available, to prevent aspiration. Observe patient for respiratory difficulty from aspiration pneumonitis. Give artificial resuscitation and appropriate chemotherapy if respiration is depressed.

It is estimated that the lethal oral dose of Diethylene Glycol to adults is of the order of 1.0 to 1,2 mL/Kg. Diethylene Glycol produces metabolites that cause an elevated anion gap metabolic acidosis and renal tubular injury. Liver injury may occur, but not as severe as kidney injury. The signs and symptoms in Diethylene Glycol poisoning are those of metabolic acidosis, CNS depression and kidney injury.
Urinalysis may show albuminuria and oxaluria.

The currently recommended medical management of Diethylene Glycol poisoning (composite of the Neoterge Super Lux) includes elimination of Diethylene Glycol and it metabolites, correction of metabolic acidosis and prevention of kidney injury. It is essential to have immediate and follow-up urinalysis and clinical chemistry.There should be particular emphasis on acid-base balance and liver and kidney function test. A continuous infusion of 5 % Sodium Bicarbonate with frequent monitoring of electrolyte and fluid balance status is used to achieve correction of metabolic acidosis and forces diuresis. For severe and/or deteriorating cases, haemodialysis may be required. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood Diethylene Glycol concentration greater than 25 mg/dL, or compromise of renal function. There are no reported cases where Ethanol has been used antidotal, although a limited number of laboratory animals' study suggests it might be effective. If used clinically, a therapeutically effective blood concentration is probably around 100 – 150 mg/dL, although it is unproven; this concentration should be achieved by a rapid loading dose and maintained by intravenous infusion.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Flammability Class (WHIMIS) : Not regulated

Flash Point (TCC, Deg. Celsius	: n.a.i.
Auto-ignition Temperature (Deg. Celsius)	: n.a.i
Flammability Limits in Air (%)	: n.a.i
Hazardous Combustion Products	: n.a.i
Unusual Fire or Explosion Hazards	: n.a.i
Sensitivity to Mechanical Impact	: n.a.i
Rate of Burning	: n.a.i.
Explosive Power	: n.a.i.
Sensitivity to Static Discharge	: n.a.i.

Hazardous Combustion Products: Thermal decomposition product are toxic and may include oxides of carbon.
Unusual Fire or Explosion Hazards: Do not direct a solid stream of foam into hot, burning pools. This may cause spattering and increase fire intensity. Close containers exposed to heat may explode.
Sensitivity to Mechanical Impact: Not expected to be sensitive to mechanical impact.
Rate of Burning: Not available
Explosive Power: Not available.
Sensitivity to Static Discharge: Not expected to be sensitive to static discharge.

EXTINGUISHING MEDIA
Apply aqueous films forming foam (AFFF) according to manufacturer's recommended techniques or water in the form of a fog for large fires. Use carbon dioxide or dry chemical media for small fires.

FIRE FIGHTING INSTRUCTIONS

Instruction to the Fire Fighters: Isolate materials that are not involved in the fire and protect personnel. The heat from a fire can cause a build-up of pressure inside temperature above 50 º C. Cool containers with flooding quantities of water until well after the fire is out.

Fire Fighting Protective Equipment: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Information in this section is for responding to spills, leaks or releases in order to prevent or minimize the adverse effects on persons, property and the environment. There may be specific reporting requirement associated with spills, leaks or releases, which change from region to region. The responsibility of reporting lies directly with the handlers of the substance.

Containment and Clean-Up Procedures: In all cases of leaks or spill contact vendor at Emergency Number show on the front page of this MSDS. Wear protective clothing. Collect product for recovery or disposal. For release to land, or storm water runoff, contain discharge by construction dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed space. Notify applicable government authority if release is reportable or could adversely affect the environment.

7. HANDLING AND STORAGE

HANDLING

Handling Practices: Use normal "GOOD" industrial hygiene and housekeeping practices. Containers which have been exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Vent containers frequently, and more often in warn weather, to relieve pressure.

Ventilation Requirements: Do no use in poorly ventilated or confined areas without proper respiratory protection. Local exhaust ventilated preferred.

Other Precautions: Use only with adequate ventilation and avoid breathing aerosols (vapors). Avoid contact with eyes, skin or clothing. Was thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Protect against excessive heat and direct sunlight. Avoid contact with any direct heat sources. All tool to open drums and transfer vessels should be made of non-sparking material.

STORAGE

Storage Temperature (Deg. Celsius): < of 40 º C.
Ventilation Requirements: General exhaust is acceptable. Local exhaust ventilation preferred.

Storage Requirements: Store in a cool, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Do not expose sealed containers to temperatures above 40 º C. Protect from direct sunlight. Protect against psysical damage.

Special Materials to be Used for Packing or Containers: Confirm suitability of any material before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment, which will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective device at your workplace.

ENGINEERING CONTROLS

General exhaust is acceptable. Local exhaust ventilation preferred. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilation low lying areas such as sumps or pits where dense vapors may collect.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye Protection: Safety glasses with side shields are recommended to prevent eye contact. Use chemical safety goggles when there is potential for eye contact. Contact lenses should not be worn working with this material.

Skin Protection: Gloves and protective clothing made from viton, PVC, nitrilo rubber, natural rubber, neoprene or rubber should be impervious under conditions of use. Prior to use, user should confirm impermeability. Discard contaminated gloves.

Respiratory Protection: No specific guideline available. Respiratory protection should not be necessary unless the material is heated or a mist created. A NIOSH/MSHA-approved air-purifying respirator equipped with organic vapor cartridges for concentrations up to 1,000 ppm organic vapors (for Diethylene Glycol). An air-supplied respirator if concentration are higher or unknown.

Other Personal Protective Equipment: Wear regular work clothing. The use of coveralls is recommended. Locate safety shower and eyewash station close to chemical handling area. Take all precautions to avoid personal contact.

EXPOSURE GUIDELINES
Recommended Exposure Limit: None established for this product..

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	: Liquid
Appearance and Odor	: Translucent off white liquid
Odor Threshold (ppm)	: Not available
Boiling Range (Deg. Celsius)	: Not determined
Melting/Freezing Point (Deg Celsius)	: Not determined
Vapor Pressure (mmHg at 20 ºC)	: Not determined
Vapor Density	: Not determined
Relative Density	: 1.02 (g/ml) approx.
Bulk Density	: Not Determined
Viscosity	: Not determined
Evaporation Rate (Butyl Acetate = 1.0)	: Not determined
Water Solubility	: Disperse
Volatility (%) by Volume	: Not determined
pH	: 4.5 – 7.0
Coefficient of Water/Oil Distribution	: Not determined
Volatile Organic Compounds (VOC)	: Not determined

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

Under Normal Conditions	: stable
Under Fire Conditions	: Not flammable

Hazardous Polymerization : Will no occur

Condition to Avoid: Not known

Materials to Avoid: Strong oxidizers. Lewis or mineral acids. Strong bases.

Decomposition or Combustion Products: Thermal decomposition products are toxic and may include oxides of carbon, monoxide of carbon, nitrogen oxides (NO, NO2…)

11. TOXICOLOGICAL INFORMATION

TOXICOGICAL DATA

Diethylene Glycol:	LD50 (oral, Rat)	= 12,565 mg/Kg
	LD50 (Dermal, Rabbit)	= 11,890 mg/Kg
	LD50 (oral, Mouse)	= 23,700 mg/Kg
	LD50 (oral, Rabbit)	= 4,400 mg/Kg

Carcinogenicity Data: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP(National Toxicology Program).

Reproductive Data: The results of reproductively test in animals have been negative.

Mutagenicity Data: No information is available and no adverse mutagenic effects are anticipated.

Teratogenicity Data: Diethylene Glycol may cause teratogenic/embryotoxic effects based on studies in laboratory animals, but only at high, generally toxic doses

Respiratory/Skin Sensitization Data: None know.

Synergistic Materials: Not known

Other Studies Relevant to Material:
In relation to the Diethylene Glycol: A chronic dietary feeding study of Diethylene Glycol with rat showed mild kidney injury at 1 %, while concentration of 2 % and 4 % caused more marked kidney injury. In addition, at 2 % and 4 % of Diethylene Glycol in the diet, some rats developed benign papillary tumors in the urinary bladder. These have been attributed to the presence of urinary bladder calcium oxalate stone. No evidence for carcinogenicity was found with a chronic skin painting study with Diethylene Glycol in mice. The absence of direct chemical carcinogenic effects accords with the results in vitro genotoxicity studies which show that it does not produce mutagenic or clastogenic effects. A feeding study employing up to 5.0 % Diethylene Glycol in the diet failed to produce any teratogenic effect.

In a mouse continuous breeding study with large doses of Diethylene Glycol in drinking water, there was evidence for reproductive toxicity at 3,5 % (equivalent to 6.1 g/Kg/day) as reduced number of litters, live pups per litter and live pup weight. No such effects were seen at 1,75 % (approximately 3.05 g/Kg/day). The relevance of these very high dosages to human health is uncertain.

Pregnant rats receiving undiluted Diethylene Glycol by gavage over the period of organogenesis had toxic effects at 4.0 and 8.0 ml/Kg/day as mortality, decreased body weight, decreased food consumption , increased water consumption and increased liver and kidney weights. Foetotoxicity was seen at only these maternally toxic dosages. Decreased fetal body weight occurred at 8,0 mL/Kg/day and increased skeletal variants at 4,0 and 8,0 mL/Kg/day. No embryotoxic or teratogenic effects were seen. Neither maternal toxicity nor foetotoxicity occurred at 1,0 mL/Kg/day. In a study with mice also receiving undiluted Diethylene Glycol over the period of organogenesis, maternal toxicity occurred at 2,5 and 10,0 ml/Kg/day, but not at 0,5 mL/Kg/day. Definitive development toxicity was not seen in this species.

Diethanolamine:	ORAL (LD50):	Acute: 710 mg/Kg (Rat).
	Dermal (LD50):	Acute: 1220 mg/Kg (Rabbit).

Poly (oxy-1,2-ethanediyl), alpha-
(Nonylphenol) – omega-hydroxy: LD50 (Oral, Rat) = 1,310 – 5,000 mg/Kg

12. ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic life at low concentrations.
Diethylene Glycol:
96-hour LC50 (Fathead Minnow) = 75, 200 mg/L
96-hour LC50 (Mosquito fish) = Above 32,000 mg/L.

Environmental Fate: Can is be dangerous if allowed to enter drinking water intakes. Product has an unaesthetic appearance and can be a nuisance. Do not contaminate domestic or irrigation water supplies, lakes, steams, ponds, or rivers.

Dietlylene Glycol is highly soluble in water. Laboratory test indicates that Diethylene Glycol is not significantly to fish or aquatic invertebrates. While there is no wildlife toxicity data available on Diethylene Glycol, laboratory test on rats would indicate that it should not be highly toxic to mammals. Diethylene Glycol is considered to be biodegradable. It is subject to transport in soil due to its high aqueous solubility. Diethylene Glycol should not biaccumulated in aquatic or terrestrial species. Due care should be taken to avoid accidental releases of the material to aquatic and terrestrial organism. may cause teratogenic/embryotoxic effects based on studies in laboratory animals, but only at high, generally toxic doses

13. DISPOSAL CONSIDERATIONS

This information applies to the material as manufactured. Processing, use or contamination may make the information inappropriate, inaccurate or incomplete. The responsibility for proper waste disposal lies with the owner of the waste.

Deactivating Chemicals of the product: Not available

Waste Disposal Methods: Dispose of wasted material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.
Safe Handling of Residues: Empty containers retain product residue. Rinse empty container thee times with water and dispose of rinse water as waste product.
Disposal of Packaging: Empty containers retain product residue. Do not dispose of package until thoroughly washed out.

14. TRANSPORTATION INFORMATION

ADR/RID: Not classified as dangerous in the meaning of road and railway transport.

IMO: Not classified marine pollutant.

Air Transportation: Not classified as dangerous in the meaning of air transportation of IATA members.
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15. REGULATORY INFORMATION

CEPA – NSRR: n.ai..
CEPA – NPRI: Not included.
Controlled Products Regulations Classification (WHMIS): Not regulated.

USA
Environmental Protection Act: No included
Classification: Not regulated.

HMIS (by Diethylene Glycol) : 1 Health 1 Fire 0 Reactivity
NFPA (by Diethylene Glycol) : 1 Health 1 Fire 0 Reactivity.

INTERNATIONAL: Not regulated

16. OTHER INFORMATION

ADDITIONAL INFORMATION AND SOURCES USED

Stanchem Inc., 43 Jutland Road. Etobicoke, Ontario. M8Z 2G6. (416) 259 – 8231 MSD Diethylene Glycol 60 – 100 %.

CSST- Service du Répertoire Toxicologique. Diethylene Glycol..

HTTP:/ccinfoweb.ccohs.ca/chemindex/Action.lasso. Search CHEMINDEX.

Written By : Textile Auxiliaries Chemicals Plant Management

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n.a.: not applicable n.a.i.: not available information