

MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Fernett Energy Solutions LLC
661 Ashanti Farm Rd.
Gordonsville, VA 22942
FOR: Nortrade AS, PB 181
4662 Kristiansand, Norway

EMERGENCY CONTACT 24 hours:
540-832-0609
INFORMATION CONTACT: 540-832-0609

SUBSTANCE: A preparation of aqueous solution of acrylic polymers

TRADE NAMES/SYNONYMS: Active Rust Primer 662 SG (Enviro-coat 2000)

USE OF THE SUBSTANCE: Rust-preventing primer

CHEMICAL FAMILY: Acrylic

CREATION DATE: Aug. 24, 2006

REVISION DATE:

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

Chemical name	Amount (optional)	CAS Number	TLV
2-(2-Butoxyethoxy)-ethanol	1 - 2.5%	112-34-5	OHSA: not established
Aqueous solution of acrylic polymers	50 - 75 %		OHSA: not established

HAZARDS DISCLOSURE: This product contains no known hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 3: HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=0 FIRE=0 REACTIVITY=0

EMERGENCY OVERVIEW:

COLOR: beige

PHYSICAL FORM: liquid

ODOR: mild

HEALTH: No known significant effects or critical hazards.

FIRE AND EXPLOSION: No specific hazard. The product is non-flammable.

ENVIRONMENT: The product is not known to represent any danger for the environment.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information is available

SKIN CONTACT:

SHORT TERM EXPOSURE: no information on significant adverse effects
LONG TERM EXPOSURE: no information is available

EYE CONTACT:

SHORT TERM EXPOSURE: no information on significant adverse effects
LONG TERM EXPOSURE: no information is available

INGESTION:

SHORT TERM EXPOSURE: no information on significant adverse effects
LONG TERM EXPOSURE: no information is available

SECTION 4: FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

EYE CONTACT: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

INGESTION: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

SECTION 5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Not a specific fire hazard. Not a specific explosion hazard.

EXTINGUISHING MEDIA: In case of fire, use water spray (fog), foam, dry chemical, or CO₂.

PERSONAL PROTECTION EQUIPMENT: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).

Environmental precautions Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.

Methods for cleaning If emergency personnel are unavailable contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

SECTION 7: HANDLING AND STORAGE

- Handling** Keep to the general safety and health regulations and to good housekeeping standards. Always keep the product in containers made of the same material as the supply container. See Section 8 for personal protection.
- Storage:** Observe label precautions. Store in a cool (1 - 50°C, 34 - 122°F) dry, well ventilated place away from sources of heat, ignition and direct sunlight.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure controls

- Occupational exposure controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work station location.
- Respiratory protection** A respirator is not needed under normal and intended conditions of product use.
- Hand protection** Use latex gloves. Penetration time is not tested for this material, change gloves often. The penetration time might vary with exposure time, the type of work and the thickness of the glove material. Change gloves frequently.
- Eye protection** Safety glasses.
- Skin protection** (other than of hands) Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits).
- Other Information** Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day. All personal protective equipment shall be CE-marked.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Odor	Mild
Color	Beige
Solubility description	Soluble in water
Specific gravity	Value: 1.05-1.10 g/cm ³ Comments: (20°C)
Boiling point	Value: 100°C
Freezing point	Value: 0°C
PH (as supplied)	Value: 2-2.8
Flash point	Comments: N.A.
Explosion limit	Comments: N.A.
Spontaneous combustibility	Comments: N.A.
Vapor pressure	Comments: Weighted average: 0.04 kPa (0.3 mm Hg) (at 20°C)
Viscosity	Value: 400-474 cP Comments: at 20°C

Taste:	N.A.
Molecular weight:	N.A.
Molecular formula:	N.A.
Freezing point:	0°C/32°F
Vapor density:	N.A.
Density:	N.A.
Water solubility:	fully
Volatility:	N.A.
Odor threshold:	N.A.
Evaporation rate:	N.A.
Coefficient of water/oil distribution:	N.A.
Solvent solubility:	N.A.

SECTION 10 STABILITY AND REACTIVITY

Materials to avoid	Slightly reactive to reactive with oxidizing agents.
Hazardous decomposition products	Not known.
Stability	The product is stable.

SECTION 11 TOXICOLOGICAL INFORMATION

Components' toxicological data

Component	2-(2-Butoxyethoxy)-ethanol
LD50 oral	Value: > 2000 mg/kg Test animal species: Rat
LD50 dermal	Value: > 2000 mg/kg
Component	Aqueous solution of acrylic polymers
LD50 oral	Value: > 5000 mg/kg Test animal species: Rat

Other information regarding health hazards

Inhalation	No evaporation from the product at normal use or storage.
Skin contact	May cause slight irritation.
Eye contact	May cause temporary eye irritation.
Ingestion	May cause some irritation to mouth, throat and stomach.

SECTION 12 ECOLOGICAL INFORMATION

Components' toxicological data

Component	2-(2-Butoxyethoxy)-ethanol
Acute aquatic, fish	Value: 1805 mg/l Test method: Not known Species: Not known Duration: 48 hours
Acute aquatic, Daphnia	Value: 3200 mg/l Test method: Not known Species: Not known Duration: 24 hours
Component	Aqueous solution of acrylic polymers
Acute aquatic, fish	Value: 72 mg/l

Acute aquatic, Daphnia

Test method: Not known
Species: Not known
Duration: 96 hours
Value: > 100 mg/l
Test method: Not known
Species: Not known
Duration: 48 hours

Other ecological information

Persistence and degradability

Degradability of the product has not been stated. 2-(2-Butoxyethoxy)-ethanol:

Bio-accumulative potential

This product is readily biodegradable.

Environmental details, conclusion

The product is not expected to bio-accumulate.

The product is not known to represent any danger for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Product classified as hazardous waste No

Packaging classified as hazardous waste No

Specify the appropriate methods of disposal

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

SECTION 14 TRANSPORT INFORMATION

Other applicable information

Not classified as dangerous goods.

SECTION 15 REGULATORY INFORMATION

Composition on the label

2-(2-Butoxyethoxy)-ethanol: 1 - 2.5 %, aqueous solution of acrylic polymers: 50-75 %

Other annotations:

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.