



MATERIAL SAFETY DATA SHEET—05-01-09

1. CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: FLEX-TEMP ADDITIVE

MANUFACTURING LOCATION:

FLEXKRETE TECHNOLOGIES
 881 N. LOUISIANA DR.
 CELINA, TX 75009

HMIS: HEALTH 1
 FLAMMABILITY: 2
 REACTIVITY: 0
 PERSONAL PROTECTION: B

CHEMICAL FAMILY/USE: METAL CARBOXYLATE

DATE REVISED: K08-21-03

IN CASE OF EMERGENCY, CONTACT:

214-850-7328

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component/CAS number	percent	ACGIH TLV:	ACGIH short	OSHA PEL:	OSHA short	Units that the TWAs and STELS for ACGIH and OSHA are in:
Mineral Spirits 8052-41-3	40	100	NE	500*	NE	ppm
Vanadium 2-Ethylhexanoate 74630-99-2	23	0.05	NE	NE	NE	mg/m3
2-Ethylhexoanic Acid 149-57-5	14	5+	NE	NE	NE	mg/m3
Diethylene glycol butyl ether 112-34-5	5	NE	NE	NE	NE	
Proprietary Component	5	NE	NE	50-AIHA	NE	ppm
Proprietary Component	13	NE	NE	NE	NE	

*The Manufacturer Recommended Exposure Limit for Mineral Spirits (8052-41-3) is 100 PPM.
 +Vapor and aerosol, inhalable fraction

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Combustible liquid. Keep away from heat and all sources of ignition. May cause mild eye irritation. Aspiration hazard if swallowed. Can enter lungs and cause damage. Keep container tightly closed. Use adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Wash hands thoroughly after handling.

EYE CONTACT:

Exposure to liquid may cause mild eye irritation. Symptoms may include stinging, tearing, and redness. Does not damage eye tissue.

SKIN CONTACT:

May cause skin defatting with prolonged exposure. Exposure may cause skin irritation.; Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying and cracking, and skin damage. Pre-existing skin disorders may be aggravated by exposure to this material.

INGESTION:

Swallowing small amounts during handling is not likely to cause harmful effects; swallowing large amounts may be harmful. Symptoms may include gastrointestinal irritation (nausea, vomiting, diarrhea), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness). This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

INHALATION:

Causes mild respiratory irritation. Breathing small amounts during handling is not likely to cause harmful effects, breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits. Symptoms of exposure may include irritation (nose, throat, respiratory tract) and central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness, possible death. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painter's syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal.

4. FIRST AID MEASURES

EYES:

If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water, holding eyelids apart. If symptoms persist, seek medical attention.

SKIN:

Remove contaminated shoes and clothing, and flush affected area with large amounts of water. If skin surface is damaged, apply clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention. Launder clothing before reuse.

INHALATION:

If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention. Keep person warm and quiet.

INGESTION:

Aspiration hazard. Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If the victim is drowsy or unconscious, place on left side with head down. If possible, do not leave victim unattended. Seek immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED:

Conditions aggravated by exposure may include skin disorders and respiratory (asthma-like_ disorders.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F)

>100,PMCC

OSHA FLAMMABILITY CLASSIFICATION:

Combustible Liquid-Classic II

EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, Halon, or foam. Water spray is recommended to cool or protect exposed materials or structures. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Halon may decompose into toxic materials. Carbon dioxide can displace oxygen. Use caution when applying Halon or carbon dioxide in confined spaces. Avoid spraying water directly into storage containers due to danger of boil over. Product will float on the surface of water and may be reignited.

SPECIAL FIREFIGHTING PROCEDURES:

During fire, a water spray can scatter flames and should be used by experienced firefighters. Firefighters should wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode when fighting fires. In addition, wear appropriate protective equipment as conditions warrant. Isolate damage area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from danger area if it can be done with minimal

Risk. Move undamaged containers from danger area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

EXPLOSION LIMITS IN AIR-LOWER (%) 0.7 FOR MINERAL SPIRITS

EXPLOSION LIMITS IN AIR-UPPER (%) 8.9 FOR MINERAL SPIRITS

AUTOIGNITION TEMP (°F) 445 FOR MINERAL SPIRITS

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Combustible liquid. Forms combustible mixtures with air at or above the flash point. This product can accumulate static charges which can cause fire or explosion. This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode and flash back.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Eliminate all ignition sources. Spilled material may be absorbed into an appropriate absorbent material. Prevent spilled material from entering sewers, storm drains, other authorized treatment drainage systems, and natural waterways. Stop spill/release if it can be done with minimal risk. Stay upwind and away from spill/release. Isolate danger and keep unauthorized personnel out. Use non-sparking tools and explosion-proof equipment. Recover by pumping (use an explosion-proof or and pump) or with a suitable absorbent. Consult and expert on disposal of recovered material and ensure conformity to local disposal regulations.

7. HANDLING AND STORAGE

HANDLING:

Keep container closed. Handle and open containers slowly and with care. Bond and ground all equipment when transferring from one vessel to another. Use explosion-proof equipment. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not pressurize, cut, heat, or weld containers. Empty product drums should be completely drained and properly bunged. All containers should be disposed of in an environmentally safe manner and in accordance with government regulations. Do not transfer to any unlabeled container. Wash exposed skin thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice. For industrial use only.

Warning: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperatures and pressures, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "auto ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

STORAGE:

Keep container tightly closed. Use and store this material in a cool, dry, well-ventilated area away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post "NO SMOKING OR OPEN FLAME." Store only in approved containers. Keep away from any incompatible material. Protect container against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Maintain airborne concentrations below established exposure limits, with proper ventilation systems. Where explosive mixtures may be present, maintain electrical systems for this purpose.

RESPIRATORY PROTECTION EQUIPMENT:

Where exposures are not adequately controlled, use respirator approved for organic vapors. A NIOSH approved air supplied respirator is advised in absence of proper environmental control. Engineering or administrative controls should be implemented to reduce exposure

PROTECTIVE GLOVES:

Appropriate disposable gloves are acceptable

EYE AND FACE PROTECTION:

Wear safety glasses or goggles to protect against exposure

OTHER PROTECTIVE EQUIPMENT:

Eye wash and quick-drench shower facilities, impervious clothing and boots

VENTILATION:

Provide sufficient mechanical ventilation to maintain exposure below TLV (S).

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Range/Point	313-390°F
Vapor Pressure	2 mm Hg@68°F for mineral spirits
Vapor Density (AIR=1)	Heavier than air
Freezing Point	Unknown
Melting Point	Unknown
Physical State	Liquid
Color	Bright Green
%Volatile by Weight	55
%Volatile by Volume	63
Evaporation Rate (Butyl Acetate=1_	Slower than ether
Specific Gravity @ 25°C	93
Weight per gallon	7.8 lbs.

10. STABILITY AND REACTIVITY

STABILITY:

Stable

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:

Carbon monoxide, carbon dioxide, various hydrocarbons. Vanadium oxide.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITY (MATERIALS TO AVOID):

Contact with oxidizing agents. Reducing agents.

CONDITIONS TO AVOID:

Avoid heat and any source of ignition.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

This product is not listed as a carcinogen by IARC, NTP or OSHA.

ACUTE ORAL LD50:

No data at this time.

ACUTE DERMAL LD50:

No data at this time.

ACUTE INHALATION LC50:

No data at this time.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

No data at this time.

CHEMICAL FATE INFORMATION:

No data at this time.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

All waste must be disposed/recycled/reclaimed in accordance with federal, state, and local environmental control regulations. This product is a RCRA hazardous waste if discarded in the produced form due to ignitibility. Empty containers must be handled with care due to material residue. In drums, containers should be completely drained.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME

Paint Related Materials

DOT HAZARD CLASS:

3

UN/NA NUMBER:

UN1263

DOT PACKAGING GROUP:

III

EXCEPTION:

49 CFR 173.150: This material may be reclassified as a combustible liquid. It can be shipped as a non-hazardous material if the container is under 120 gallons.

AIR FREIGHT TRANSPORTATION: Flammable liquid, NOS (contains Petroleum Distillates, 3, UN1993, III

OCEAN TRANSPORTATION: Flammable Liquid, NOS (contains Petroleum Distillates), 3, UN1993, III

15. REGULATORY INFORMATION

TSCA STATUS:

All components of this product are on the US TSCA Inventory.

TSCA 12(B) EXPORT NOTIFICATION:

No components of this product are subject to TSCA 12(b) export notification requirements.

CALIFORNIA PROPOSITION 65:

This material may contain the following chemical which are known to the State of California to cause cancer or birth defects and are subject to the requirements of California Proposition 65:

Benzene (71-43-2)	Cancer
Toluene (108-8803)	Birth Defect

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LIST:

This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substance List.

SARA (311,312) HAZARD CLASS:

Acute health hazard. Fire hazard

SARA SECTION 313 TOXIC CHEMICALS:

Vanadium Compounds	23%
Glycol Ethers	5%

AUSTRALIAN INVENTORY CHEMICAL SUBSTANCES:

All components are listed on the Australian Inventory with the exception of: Vanadium 2-Ethylhexoate (74630-99-2).

CANADIAN INVENTORY:

All components are listed on the Canadian Inventory with the exception of: Vanadium 2-Ethylhexoate (74630-99-2), which is on the NDSL.

EINECS REGULATION: All components are listed on the European Chemical Substance Inventory with the exception of: Vanadium 2-Ethylhexoate (74630-99-2).

JAPAN:

All components are listed on the Japanese Existing and New Chemical Substances (ENCS), with the exception of: Vanadium 2-Ethylhexoate (74630-99-2).

KOREAN CHEMICAL INVENTORY:

All components are listed on the Korean Inventory with the exception of: Vanadium 2-Ethylhexoate (74630-99-2).

PHILIPPINE INVENTORY:

All components are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) with the exception of: Vanadium 2-Ethylhexoate (74630-99-2).

CHINESE INVENTORY:

All components are listed on the Chinese Inventory of Existing Chemical Substances with the exception of: Vanadium 2-Ethylhexoate (74630-99-2).

16. OTHER INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.