Material Safety Data Sheet
May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY *(as Used on Label and List)*
CHRONOFLEX AR/LT
in DIMETHYLACETAMIDE

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's name: AdvanSource Biomaterials	Emergency Telephone Number: 978-657-0075
Address *(Number, Street, City, State and ZIP Code)*	Telephone Number for Information – 1-888-657-0075
229 Andover Street	Date Prepared: 22Jul2008
Wilmington, MA 01887	Signature of Preparer *(optional)*

Section II—Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	CAS #	TWA (mg/m^3)	Exposure Limits CEIL (mg/m^3)	% (by Weight)
Dimethylacetamide (DMAC)	127-19-5	35	15	80

Toxicology Data on Solvent: ChronoFlex AR/LT

ORAL (LD50):	Acute:	4300 mg/kg (Rat)	4620 mg/kg (Mouse)
DERMAL (LD50):	Acute:	2240 mg/kg (Rabbit)	
VAPOR (LC50):	Acute:	2475 ppm (Rat) (1 hour)	

Section III—Physical/Chemical Characteristics

Boiling Point: 164.2°C (327.6°F)		Specific Gravity: 0.97 (H_20 = 1)	
Vapor Pressure: 1.5 (mm of Hg(@20°C)		Flash Point:158°F	
Vapor Density: 3 (AIR = 1)			

Solubility: Soluble in Dimethylacetamide solvent.

Appearance: Translucent Liquid | Color: Translucent | Odor: Slightly pungent | Odor Threshold: 21.4 ppm

Section IV—Fire and Explosion Hazard Data

Flash Point: CLOSED CUP: 66°C (150.8°F) OPEN CUP: 70°C (158°F)	Flammable Limits: LOWER: 1.8% UPPER: 11.5%	Auto-Ignition Temperature: 490°C (914°F)

Flammability: Dimethylacetamide – Combustible. **Product of Combustion**: These products are carbon oxides (CO,CO_2), nitrogen oxides (NO, NO_2)

Extinguishing Media: SMALL FIRE: Use DRY Chemicals, CO_2, water spray or foam.
LARGE FIRE: Use water spray, fog or foam. DO NOT USE WATER JET!

Unusual Fire and Explosion Hazards

(Reproduce locally) OSHA 174 Sept. 1985

Section V—Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable √	at room temperature	

Incompatibility *(Materials to Avoid):* *Oxidizing agents.*

Hazardous Decomposition or Byproducts: Thermal decomposition may produce CO, carbon dioxide, nitrogen oxides and peroxides.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur √		

Section VI—Health Hazard Data

Route(s) of Entry Inhalation? Skin? Ingestion?

Health Hazards – Acute –Slightly dangerous to dangerous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

- Chronic – Slightly dangerous to dangerous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Signs and Symptoms of Exposure: This product may irritate eyes and skin upon contact. Do not breathe vapors.

Carcinogenicity – N/A NTP? IARC Monographs? OSHA Regulated?

Medical Conditions Generally Aggravated by Exposure – The solvents are toxic to liver, mucous membranes, kidneys, and central nervous system. Repeated or prolonged exposure to the substance can produce target organs damage. Target organs: Liver, Kidney, and Central Nervous System. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Emergency and First Aid Procedures: EYE CONTACT – Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. DO NOT use an eye ointment. Seek medical attention.

SKIN CONTACT – If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

SERIOUS SKIN CONTACT – Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

INHALATION – Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

SERIOUS INHALATION – Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth – to mouth resuscitation. Seek immediate medical attention.

WARNING: It may be dangerous to the person providing aid to give mouth – to mouth resuscitation when the inhaled material is toxic, infectious or corrosive.

INGESTION – Remove dentures if any. Watch for an obstruction in the victim's mouth. Remove if possible what is causing the obstruction but do not force fingers or a hard object between the victim's teeth. Have conscious person drink several glasses of water or milk. Induce vomiting by sticking finger in throat. Seek immediate medical attention.

SERIOUS INGESTION – Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Remove dentures if any. Watch for an obstruction in the victim's mouth. Remove if possible what is causing the obstruction but do not force fingers or a hard object between the victim's teeth. If a soft pad can be inserted between the victim's teeth, it will protect the tongue from being bitten. A badly bleeding tongue immensely complicates the victim's problem. Have conscious person drink several glasses of water or milk. Induce vomiting by sticking finger in throat. Lower the head so that the vomit will not restrain the victim, but do remove objects with which he/she might injure himself/herself or orient the victim to prevent him/her from striking fixed heavy objects. If the convulsions cease, turn the victim on the side or face down so that any fluid in the mouth will drain. Seek immediate medical attention.

Section VII—Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled: SMALL SPILL: Dilute with water and mop up, or absorb with an inert DRY material and place in appropriate waste disposal container.

LARGE SPILL: Combustible material. Evacuate area. Shut off all sources of ignition. Wear self-contained breathing apparatus, rubber boots & heavy rubber gloves. Absorb on sand or vermiculite & place in closed containers for disposal. Ventilate area & wash spill site after material pickup is complete.

Waste Disposal Method: This combustible material may be burned in a chemical incinerator equipped with an afterburner & scrubber.

Observe all federal, state & local environmental regulations.

Precautions: Keep locked up. Keep away from heat & sources of ignition. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing material. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin & eyes.

Storage: Keep container dry. Keep it in a cool, well ventilated place. Ground all equipment containing material. Keep container tightly closed.

Other Precautions: Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

Section VII—Control Measures

Respiratory Protection – *Wear vapor respirator when ventilation is inadequate. Be sure to use a MSHA/NIOSH approved respirator or equivalent.*

Ventilation	Local Exhaust: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.	Special
	Mechanical *(General)*	Other

Protective Gloves - impervious.	Eye Protection – Splash goggles.

Other Protective Clothing or Equipment: Eyewash station and safety shower is proximal to the work station.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.