PVC CEMENT

SDS Revision Date: **12/12/2022**

1. Identification

1.1. Product identifier

Product Identity	PVC CEMENT (CLEAR) WINTER GRADE
Alternate Names	20-130, Blended Formula, PVC Cement, Low V.O.C. Solvent Cement for PVC Plastic Pipe & Fittings- 1 pt

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	It is used as a fast-setting, medium viscosity, high strength cement.
Application Method	Read all precautions and instructions carefully before and after use.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-47 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure, or accident. Please direct all other inquiries to our customer service phone number.

2. Hazard(s) identification

GHS Classification:

2.1. Classification of the substance or mixture

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, Oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Acute toxicity	None known
	Chronic toxicity	None known

Osha defined hazards	Not Classified	

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Signal word **DANGER**

Hazard statement]

H225: Highly flammable liquid and vapor.

H319: Causes serious eye irritation

H332: Harmful if inhaled.

H335: May cause respiratory irritation. Harmful if swallowed and enters airways.

H336: May cause drowsiness or dizziness

[Precautionary statements]

[Prevention]:

P210: Keep away from heat/sparks/open flames/ hot surfaces- No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

P261: Avoid breathing dust/fumes/gas/mist/vapors/spray

P280: Wear protective gloves/protective clothing/eye protection/face protection

P304+P340: If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P403+P233: Store in a well-ventilated place. Keep container tightly closed

P501: Dispose of contents/containers in accordance with local regulation

[Response]:

If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do not induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated

clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

[Storage]:

Store in a well-ventilated place. Keep container lightly closed. Keep cool. Store locked up.

[Disposal]:

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Chemical Name	CAS	WEIGHT%
TETRAHYDROFURAN (THF)	109-99-9	20-40
METHYL ETHYL KETONE (MEK)	78-93-3	30-45
CYCLOHEXANONE	108-94-1	15-25

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Call a poison center or doctor/physician if you feel unwell.

Eyes	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin	Take off immediately all contaminated clothing. Wash skin thoroughly with soap and water. If skinirritation occurs: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Likely Routes for Exposure	Inhalation, Eye and Skin Contact
Most important symptoms/effects, acute and delayed	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness, and nausea. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting equipment/instructions	Firefighting equipment/instructions
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand, or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements, or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

7.1. Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take

precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink, or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks, and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls and personal protection

8.1. Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	ACGIH 8-hr TLV	ACGIH 15-min STEL	OSHA 8-hr PEL	OSHA 15 min STEL	OSHA PEL-Ceiling	CAL/OSHA 8-hr PEL	CAL/OSHA Ceiling	CAL/OSHA 15-min STEL
Tetrahydrofuran (THF)	50 ppm	100 ppm	200 ppm	N/E	N/E	200 ppm	N/E	250 ppm
Methyl Ethyl Ketone (MEK)	200 ppm	300 ppm	200 ppm	N/E	N/E	200 ppm	N/E	300 ppm
Cyclohexanone	20 ppm	50 ppm	50 ppm	N/E	N/E	25 ppm	N/E	N/E

Engineering Controls: Use local exhaust as needed.
Monitoring: Maintain breathing zone airborne concentrations below exposure limits.

8.2. Personal Protective Equipment (PPE):

Eye Protection:
Avoid contact with eyes, wear splash-proof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as may be appropriate for the exposure.

Skin Protection:
Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent

immersion. Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.

Respiratory Protection:

Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.

9. Physical and chemical properties

Appearance	Clear, regular syrupy liquid
Odor	Ketone
Odor threshold	0.88 ppm (Cyclohexanone)
pH	Not available
Melting point / freezing point	-108°C (-162°F) Based on first melting component: THF
Initial boiling point	67°C (151°F) Based on first boiling component: THF
Boiling Range	66°C (151°F) to 156°C (313°F)
Flash Point	-14°C (7°F) TCC based on THF
Evaporation rate (Ether = 1)	> 1.0 (BUAC = 1)
Flammability (solid, gas)	Category 2
Upper/lower flammability or explosive limits	Lower Explosive Limit: 1.1% based on Cyclohexanone Upper Explosive Limit: 11.8% based on THF
Explosive limit-lower (%)	Not available
Explosive limit-upper(%)	Not available
Vapor pressure (Pa)	129 mm Hg @ 20°C (68°F) based on THF
Vapor Density	>2 (Air = 1)
Specific Gravity	0.934 @23°C (73°F)
Solubility in Water	Solvent portion soluble in water. Resin portion separates out.
Partition coefficient n-octanol/water (Log Kow)	Not available
Auto-ignition temperature	321°C (609.8°F) based on THF

Decomposition temperature	Not available
Other Data Viscosity (cSt)	Regular bodied
Octanol/Water Partition Coefficient	Not available

Other information

VOC (weight%) When applied as directed, per SCAQMD Rule 1168, Test Method 316A VOC content is ≤ 510 g/l.

10. Stability and reactivity

10.1. Conditions to avoid

Avoid heat, sparks, open flames, and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

10.2. Incompatible material

Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.

10.3. Reactivity

The product is stable and non-reactive under normal conditions of use, storage, and transport

10.4. Chemical stability

Material is stable under normal conditions.

10.5. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.6. Hazardous decomposition products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness, and nausea. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical, and toxicological characteristics	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Toxicity	LD50	LC50	Target Organs
Tetrahydrofuran	Oral: 2842 mg/kg (rat)	Inhalation 3 hrs. 2100 mg/m3 (rat)	STOT SE3
Methyl Ethyl Ketone (MEK)	Oral: 2737 mg/kg (rat), Dermal: 6480 mg/kg (rabbit	Inhalation 8 hrs. 23,500 mg/m3 (rat)	STOT SE3
Cyclohexanone	Oral: 1535 mg/kg (rat), Dermal 948 mg/kg (rabbit)	Inhalation 4 hrs. 8,000 PPM (rat)	Not Established

Reproductive Effects	Teratogenicity	Mutagenicity	Embryotoxicity	Sensitization to Product	Synergistic Products
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation. **single exposure**

Specific target organ toxicity -Not classified. **repeated exposure**

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity: None Known
Mobility in Soil: If released into the environment, this product can move rapidly through the soil.
Degradability: Not readily biodegradable
Bioaccumulation: Minimal to none

13. Disposal considerations

Disposable considerations	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material andits container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not

	contaminate ponds, water ways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	the waste code should be assigned in discussion between the user, the producer, and the waste disposal company.
Waste from residues/unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some productresidues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
Waste treatment methods	Observe all federal, state, and local regulations when disposing of this substance

Follow local and national regulations. Consult disposal expert.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO/IMDG (Ocean Transportation)	ICAO/IATA
14.1 UN number	UN1993	UN1993	UN1993
14.2. UN proper shipping name	Flammable liquids, n.o.s. (Methyl ethyl ketone RQ=26274 LBS, Acetone RQ=13130 LBS)	Flammable liquids, n.o.s. (Methyl ethyl ketone, Acetone)	Flammable liquids, n.o.s. (Methyl ethyl ketone, Acetone)
14.3. Transport hazard Class(es)	3	3	3
Subsidiary risk	-		
Label(s)	3		
14.4. Packing group	II	II	II
14.5. Environmental hazards		No	No
14.6. Special precautions for user	Read safety instructions, SDs & emergency procedures before handling.	Read safety instructions, SDs & emergency procedures before handling.	Read safety instructions, SDs & emergency procedures before handling.
ERG Code			3H
Special provisions	IB2, T7 TP1, TP8, TP28		
Packaging exceptions	150		

Packaging non bulk	202		
Packaging bulk	242		
Marine pollutant		No	
EMS		F-E, S-E	

Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code -Not Available

15. Regulatory Information

US federal regulations: This product is "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910. 1200
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt D): Not Regulated.
OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050): Not Listed.
CERLA Hazardous Substances List (40 CFR 302.4)

Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories Immediate Hazard- Yes
Delayed Hazard- No
Fire Hazard- Yes
Pressure Hazard- No
Reactivity Hazard- No

SARA 302 Extremely hazardous substances: Not listed
SARA 311/312 Hazardous chemical: No
SARA 313 (TRI reporting): Not regulated
Other federal regulations
Clean Air Act (CAA) Section112 Hazardous Air Pollutants (HAPs) List: Not regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention

(40 CFR 68.130) Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.
Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Methyl ethyl ketone (CAS 78-93-3) 6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c)

Methyl ethyl ketone (CAS 78-93-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Methyl ethyl ketone (CAS 78-93-3)	6714

US state regulations

US. Massachusetts RTK - Substance List

Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. New Jersey Worker and Community Right-to-Know Act

Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. Rhode Island RTK

Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country.

16. OTHER INFORMATION

HMIS® ratings	**Health:2**

	Flammability:3 **Physical hazard:0**

NFPA ratings

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Material Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document