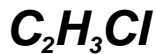


Vinyl Chloride Monomer (VCM)



Vinyl chloride monomer (VCM) is a colorless gas with a faint odor. It forms a liquid readily under increased pressure or at reduced temperatures. VCM is used primarily in the production of polyvinyl chloride (PVC) homopolymer and copolymer resins.

Georgia Gulf's VCM is produced by oxychlorination and direct chlorination of ethylene at our chemical complex located in Plaquemine, Louisiana.

Properties

Molecular weight	62.5
Boiling point, °C	-13.9
°F	-7.0
Freezing Point, °C	-153.8
°F	-244.8
Flash point, °C	-77.8
°F	-108
Vapor pressure, (mm mercury @ 68 °F)	2580
Specific gravity of liquid, 15/4 °C (water =1)	0.9122
Vapor density @60 °F (air=1)	2.2

Uses

The largest use for vinyl chloride monomer is in the production of polyvinyl chloride (PVC) homopolymer and copolymer resins. These PVC resins are converted to products for a number of end-use markets. More than half of the total VCM consumption is for construction-related applications, with pipe being the largest single product. Other products made from PVC resins include flooring, packaging film and sheet, and bottles.

Handling and Storage

Any area where VCM is stored, used or handled must be established as a regulated area with controlled access, limited to authorized persons. Containers of VCM and regulated areas must bear the label "Cancer-Suspect Agent." VCM must be handled in accordance with OSHA Standard 29 CFR 1910.1017.

VCM is a stable compound; however, do not expose VCM to air as VCM gas readily forms explosive mixtures with air. Also, since VCM gas is heavier than air, it can flow along surfaces, reach a distant ignition source and flash back. Avoid exposing VCM to heat. When VCM vapor is exposed to heat or flame, the explosion hazard is severe. VCM forms toxic and corrosive gases when burned.

Do not allow VCM to come in contact with copper, aluminum, certain catalytic impurities and atmospheric oxygen (VCM can form peroxide by catalyzed oxidation). Hazardous polymerization of VCM will occur if VCM is exposed to heat or catalyzing reactions or if it comes in contact with oxygen. When VCM decomposes, it forms highly toxic fumes of phosgene, carbon monoxide and hydrogen chloride.

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IMPORTANT: The technical data herein is believed to be accurate. It is offered for your consideration investigation and verification. Buyer assumes all risk of use, storage and handling of the product.

No warranty, expressed or implied, is made including, but not limited to, implied warranties of merchantability and fitness for a particular purpose.

Nothing contained herein shall be construed as a license to operate under, or recommendation to infringe, any patents.

In case of a VCM fire, dry chemical and carbon dioxide can be used. Water is ineffective in extinguishing VCM fires but should be used to keep containers cool since heated VCM cylinders can rupture. Protect anyone shutting off a VCM gas supply with a heavy water spray. Firefighters should fight advanced fires from a protected area and must wear self-contained breathing equipment. Large VCM fires are practically inextinguishable.

VCM spills are subject to EPA regulatory requirements. Spill wastes must be disposed of in accordance with EPA hazardous waste regulations.

Georgia Gulf recommends that prior to installing VCM storage facilities, you contact all concerned local government agencies, i.e., fire department, health department, environmental quality, etc. Local requirements may vary, and any VCM installation should meet the standards of these agencies.

VCM spills may need to be reported to the National Response Center (800-424-8802). Disposal of spill material should be in compliance with local, state and federal regulations.

More information on the safe handling of VCM is in the Material Safety Data Sheet available from Georgia Gulf.

Shipping

Georgia Gulf supplies VCM in tankcars and ocean going vessels from our plant in Plaquemine, Louisiana.

The Department of Transportation (DOT) regulates the shipment of VCM, and information concerning the placarding and reportable quantity requirements for any quantity of shipment is available from the DOT Materials Transportation Bureau or from Georgia Gulf.

VCM is classified by the DOT as a flammable gas; its Hazardous Material Identification number is UN 1086. Any signs of leaking product during shipping or unloading should be given prompt attention. In case of emergency, contact CHEMTREC at 800-424-9300.

Sales and Service

Competent sales personnel are available to help meet your needs with Georgia Gulf chemicals.