Manufacturing Chemists A
(FOUNDED 1872)
246 WOODWARD BUILDING — 15TH AND H STS., N. W.
WASHINGTON 5, D. C.
SECRETARY'S OFFICE

PLAINTIFF'S EXHIBIT

DOW-2895

October 2, 1953

To Members of: General Safety Committee
Medical Advisory Committee

To Chairmen of: LAPI Committee
Metal Packages Committee
Miscellaneous Packages Committee
Tank Car Committee
Water Pollution Abatement Committee

Subject: Chemical Safety Data Sheet
VINYL CHLORIDE - SD-56

R/D INFORMATION RETRIEVAL 1978

Gentlemen:

Appended hereto is the FINAL draft for the above referred to Chemical Safety Data Sheet. The text contains a number of revisions suggested by members of the Committee and producers and users of vinyl chloride.

In order to comply with our publication schedule it is earnestly requested that all comments and corrections be placed at our disposal not later than October 23.

Copies of the draft are being sent to those producers and users who have received copies of the previous draft in the hope that those paragraphs on which they had commented might be re-examined, and if necessary, deleted or corrected.

The producers and users are The Dow Chemical Company, The Firestone Plastics Company, B. F. Goodrich Chemical Company, Goodyear Tire & Rubber Company, Inc. and Naugatuck Chemical Division, United States Rubber Company.

The writer appreciates very much the cooperation of all concerned in completing the present draft.

Very truly yours,

A. J. Wuertz, Secretary
General Safety Committee

AJW:mbs
Attachment



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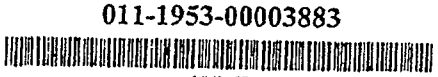

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CHEMICAL SAFETY DATA SHEET SD-56

Properties And Essential Information

For

Safe Handling And Use

Of

VINYL CHLORIDE

Adopted 1953

R/O INFORMATION RETRIEVAL 1979

Chemicals in any form can be safely stored, handled or used if the physical, chemical and hazardous properties are fully understood and the necessary precautions, including the use of proper safeguards and personal protective equipment, are observed.

SEAL

Manufacturing Chemists' Association, Inc.

246 Woodward Bldg., 15th & H Sts., N. W., Washington 5, D. C.

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Chemical Safety Data

VINYL CHLORIDE

S U M M A R Y

Vinyl chloride is a highly volatile extremely FLAMMABLE compressed gas which is ordinarily handled in liquefied form under pressure. It has a mild anesthetic action in concentrations above 500 ppm and the vapors are irritating to the eyes.

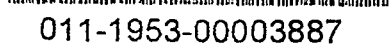
Precautions necessary in handling the material are detailed in the body of the Safety Data Sheet. Key points to consider for safe handling include:

1. Keep away from heat, sparks and open flame.
2. Provide adequate ventilation.
3. Ground equipment and containers before discharging to reduce danger of ignition from static sparks.
4. In discharging do not heat containers above 50°C. (122°F.). No heat should be applied to tank cars.
5. All equipment etc. should be of steel and have a designed working pressure of at least 100-150 psi.
6. In the event of accidental leaks, spills or whenever excessive vapor concentrations may be encountered only personnel equipped with approved respiratory protection should be permitted in the contaminated area.
7. Chemical safety goggles should be worn when discharging containers or tank cars or whenever there is a danger of the liquid or saturated vapor coming in contact with the eyes.
8. Waste disposal should be away from any source of ignition. Dilute phenolic residues before discharging to sewer.

In case of fire use carbon dioxide or dry chemical extinguishing equipment. In the event of contact with the liquid remove contaminated clothing immediately. For eyes flush immediately with large quantities of water for at least 15 minutes while seeking medical attention.

R/D INFORMATION RETRIEVAL 1979





1. NAME . . . . . .

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2.2 Important Physical and Chemical Properties . . . . . .
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(WARRANTY CLAUSE)

R/D INFORMATION RETRIEVAL 1979



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VINYL CHLORIDE

Adopted October, 1953

1. NAME

Chemical Names:	Vinyl Chloride Chloroethylene Chloroethene
Common Name:	Vinyl Chloride
Formula:	CH_2CHCl

2. PROPERTIES

2.1 Grade

Technical with inhibitor. (Purity of sample 99.42%)

2.2 Important Physical and Chemical Properties:*

Boiling Point	-13.8°C. (+7°F.)
Color	Colorless or water white
Corrosivity	Noncorrosive at normal atmospheric temperatures when dry (moisture free). In contact with water at elevated temperatures vinyl chloride accelerates corrosion of iron or steel.
Critical Pressure	52.7 atmospheres
Critical Temperature	158.4°C. (316.8°F.)
Deliquescence	No
Explosive Limits (Percent by Volume in Air)	Lower 4%; Upper 22%
Flash Point	-78°C. (-180.4°F.), Open Cup
Hygroscopicity	No

H/D INFORMATION RETRIEVAL 1973

*Many of the data recorded under this paragraph were determined in the research laboratory of one of the large producers of vinyl chloride and are based on a technical grade material having a purity of 99.42%. Materials from other sources may vary in accordance with the nature of the impurities or the character of the inhibitor present.

Ignition Temperature, Autogenous	472.22°C. (882°F.)
Light Sensitivity	Not a factor in [illegible] chloride
Melting Point . . . . . (Freezing Point)	-153.71°C. (-245°F.)
Molecular Weight	62.50
Odor	Sweet smelling gas.
Physical State	Gas at ordinary temperature and pressure. Liquid under pressure in cylinders or pressure vessels at room temperature.
Reactivity	Polymerizes readily in presence of air, sunlight, oxygen or heat. This behavior is due to the presence of a double bond. Otherwise vinyl chloride is quite stable.
Specific Gravity	.9121 @ 20°/20°C. (water= 1.00)
Vapor Density	2.15 (Air= 1.00)
Vapor Pressure	2580 mm. of mercury 20°C. (68°F.)

R/O INFORMATION RETRIEVAL 1978

2.3 Hazardous Properties

2.3.1 Health Hazards (See 8. Health Hazards and Their Control)

Vinyl chloride presents no very serious problem in general handling aside from the risk of fire and explosion. The presently accepted upper limit of safety as a health hazard is 500 ppm.

2.3.2 Fire Hazard

Vinyl chloride vapors form flammable mixtures with air at all temperatures above -78°C. (-108.4°F.).

3. USUAL SHIPPING CONTAINERS

3.1 Type and Size

3.1.1 Approved ICC cylinders, tank cars and tank trucks designed to carry liquid gases under pressure and provided with safety relief apparatus.

3.1.2 All parts of valve and safety devices in contact with contents of containers must be of metal or other material, suitably treated if necessary, which will not cause formation of any acetylides. A good practice is to dismantle all valves for inspection before each loading. Approved cylinders include ICC - 4B300 and ICC - 4BA300, ICC -