



# Material Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### ECOSOLV® Dry Cleaning Fluid

**Product Use:** Solvent

**Product Number(s):** 0001061171, 0001058747, 1062821, 0001058748, 1058747, 0001061242, 1061171, 1058748, 0001037423

**Synonyms:** Isoalkanes; Aliphatic hydrocarbon; Isoparaffins

**Product CAS No.:** Mixture

**Company Identification:**

Chevron Phillips Chemical Company LP  
Specialty Chemicals  
10001 Six Pines Drive  
The Woodlands TX 77380

**Product Information:**

MSDS Requests: (800) 852 - 5530  
Technical Information: (832) 813 - 4862  
Responsible Party: Product Safety Group  
Email:msds@cpchem.com

Chevron Phillips Chemicals International N.V.  
Brusselsesteenweg 355  
B-3090 Overijse  
Belgium

**24-Hour Emergency Telephone Numbers** HEALTH: Chevron Phillips Emergency Information Center 866.442.9628 (North America) and 1.832.813.4984 (International)

TRANSPORTATION: North America: CHEMTREC 800.424.9300 or 703.527.3887  
ASIA: +1.703.527.3887  
EUROPE: BIG .32.14.584545 (phone) or .32.14.583516 (telefax)  
SOUTH AMERICA SOS-Cotec Inside Brazil: 0800.111.767  
Outside Brazil: 55.19.3467.1600

## SECTION 2 HAZARDS IDENTIFICATION

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**EMERGENCY OVERVIEW**

Colorless liquid at room temperature. Mild hydrocarbon odor.

**NFPA RATINGS:** Health: 1 Flammability: 2 Reactivity: 0

**GHS Classification and Labeling:**

Flammable liquid: Category 4.  
Aspiration toxicant: Category 1.  
Skin irritation: Category 3.

Target organ toxicant (central nervous system): Category 3.  
Target organ toxicant (respiratory irritant): Category 3.

**Signal Word:** Danger



**GHS Symbol:**

**Physical Hazards:** Combustible liquid.

**Health Hazards:** May be fatal if swallowed and enters airways. Causes mild skin irritation. May cause drowsiness or dizziness. May cause respiratory irritation.

**Precautionary Hazard - Prevention:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Hazard - Response:** If skin irritation occurs: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. In case of fire: evacuate area. Use manufacturer/supplier or the competent authority to specify appropriate media for extinction. Do NOT induce vomiting. Get medical advice/attention.

**Precautionary Hazard - Storage:** Store in a well-ventilated place. Keep cool. Store locked up.

**Precautionary Hazard - Disposal:** Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**EU Classification:**

Danger

**Risk Phrases:**

R66: Repeated exposure may cause skin dryness or cracking.

R65: Harmful: may cause lung damage if swallowed.

R67: Vapors may cause drowsiness and dizziness.

**Safety Phrases:**

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S2: Keep out of the reach of children.

S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.

S28: After contact with skin, wash immediately with soap and water.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

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**IMMEDIATE HEALTH EFFECTS:**

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** This material may be irritating to the skin. The degree of the injury will depend on the amount of material that gets onto the skin and the speed and thoroughness of the first aid treatment. Prolonged or repeated skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering. Not expected to be harmful to internal organs if absorbed through the skin.

**Ingestion:** This material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death. May be irritating to mouth, throat, and stomach. Symptoms may include nausea, vomiting, and diarrhea.

**Inhalation:** Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	AMOUNT	EINECS / ELINCS	SYM	R-PHRASE S
C10-C13 Isoalkanes	68551-17-7	> 99.0 % weight	271-366-9	NA	NA
Additives	Various	< 1.0 % weight	NA	NA	NA

**Occupational Exposure Limits:**

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
Additives	ACGIH	2 mg/m <sup>3</sup>	NA	NA	NA
Additives	German MAK	10 mg/m <sup>3</sup>	NA	NA	NA
C10-C13 Isoalkanes	ACGIH	Not Established	NA	NA	NA

**SECTION 4 FIRST AID MEASURES**

**Eye:** Flush eyes with running water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.

**Skin:** To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. Get medical attention if any symptoms develop.

**Ingestion:** If swallowed, do not induce vomiting. Give the person a glass of water or milk to drink and get immediate medical attention. Never give anything by mouth to an unconscious person.

**Inhalation:** Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

**Note to Physicians:** Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

**SECTION 5 FIRE FIGHTING MEASURES**

See Section 7 for proper handling and storage.

**FIRE CLASSIFICATION:**

Classification (29 CFR 1910.1200): Combustible liquid. OSHA Classification (29 CFR 1910.1200): Combustible liquid.

**NFPA RATINGS:** Health: 1 Flammability: 2 Reactivity: 0

**FLAMMABLE PROPERTIES:**

**Flashpoint:** 61.1°C (142°F) (Tag Closed Cup)

**Autoignition:** NDA

**Flammability (Explosive) Limits (% by volume in air):** Lower: 1.1 Estimated Upper: 6.1

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** CAUTION! COMBUSTIBLE. Clear fire area of all non-emergency personnel. Only enter confined fire space with full bunker gear, including a positive pressure, NIOSH-approved, self-contained breathing apparatus. Cool surrounding equipment. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water/min flame impingement exposure) to prevent weakening of container structure. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form: Carbon Dioxide, Carbon Monoxide

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator. Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8. Eliminate potential sources of ignition. Handling equipment must be bonded and grounded to prevent sparking.

**Spill Management:** CAUTION! COMBUSTIBLE. Eliminate potential sources of ignition. Shut off leak if safe to do so.

Dike and contain spill. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Contain run-off from residue flush and dispose of properly. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible sorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to local authorities and/or the National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL . REFER TO PRODUCT LABEL OR MANUFACTURERS TECHNICAL BULLETINS FOR THE PROPER USE AND HANDLING OF THIS MATERIAL .**

**Precautionary Measures:** Liquid evaporates and forms vapor (fumes) that can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 85F. Avoid contact with eyes, skin and clothing. Discard contaminated clothing and shoes or thoroughly clean before reuse. Avoid breathing vapor or fumes.

**General Handling Information:** Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids, National Fire Protection Association (NFPA 77), Recommended Practice on Static Electricity' (liquids, powders and dusts), and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents' (liquids).

**General Storage Information:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner, or disposed of properly. **DO NOT USE OR STORE** near heat, sparks or open flames. **USE AND STORE ONLY IN WELL VENTILATED AREA.** Keep container closed when not in use.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT:**

**Eye/Face Protection:** Wear eye protection such as safety glasses, chemical goggles, or faceshields if engineering controls or work practices are not adequate to prevent eye contact.

**Skin Protection:** Wear impervious protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing. Suggested materials for protective gloves include: Nitrile, or Viton

**Respiratory Protection:** If exposure is anticipated to be greater than applicable exposure limits, wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material. Use the following elements for air-purifying respirators: Air-Purifying Respirator for Organic Vapors Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Limit	TWA	STEL	Ceiling / Peak	Notation
Additives	ACGIH	2 mg/m <sup>3</sup>	NA	NA	NA
Additives	German MAK	10 mg/m <sup>3</sup>	NA	NA	NA
C10-C13 Isoalkanes	ACGIH	Not Established	NA	NA	NA

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance and Odor:** Colorless liquid at room temperature. Mild hydrocarbon odor.

**Autoignition:** NDA

**Boiling Point:** 189°C (372.2°F) - 208°C (406.4°F)

**Evaporation Rate:** <1

**Flammability (Explosive) Limits (% by volume in air):** Lower: 1.1 Estimated Upper: 6.1

**Flashpoint:** 61.1°C (142°F) (Tag Closed Cup)

**Molecular Formula:** Mixture

**Molecular Weight:** NA

**Melting Point:** NDA

**Octanol / Water Partition Coefficient: log-Kow:** NDA

**pH:** 7 Approximate

**Pour Point:** NDA

**Solubility (in water):** Negligible

**Specific Gravity:** 0.762 @ 15.6 °C (60°F)

**Vapor Pressure:** 1.5 mmHg @ 38 °C (100°F)

**Vapor Density (AIR=1):** >3

**Viscosity:** 1.55 cSt @ 38 °C (100°F)

**Percent Volatile:** 100 % volume

**SECTION 10 STABILITY AND REACTIVITY**

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Conditions to Avoid:** No Data Available

**Incompatibility With Other Materials:** May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous Decomposition Products:** Carbon Oxides.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### IMMEDIATE HEALTH EFFECTS:

**Acute Oral Toxicity:** LD50 / rat / 34.6 g/kg

**Acute Dermal Toxicity:** LD50 / rat / 15.4 g/kg

**Acute Inhalation Toxicity:** LC50 / rat / > 1215 ppm / 6 hour(s)

**Eye Irritation:** This material is not expected to be irritating to the eyes.

**Skin Irritation:** May cause skin irritation.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains SOLTROL 130:

Repeated Dose Toxicity: 4 weeks / inhalation / monkey / Doses: 0, or 654

ppm 6 h/d, 3 d/wk / NOAEL = 654 ppm

Genetic Toxicity: AMES – negative / Mouse Lymphoma Forward Mutational Assay

= negative / In Vitro Sister Chromatid Exchange Assay in Chinese Hamster

Ovary Cells = negative

This product contains ISOPARAFFIN C9-C11

Target Organ: 12 week / inhalation / rat / 0, 300, 900 ppm / NOAEL > 900 ppm

This product contains ISOPARAFFIN C10-C11.

Reproductive and Developmental: exposed Day 6-15 of Gestation / inhalation / rat / 0, 300, 900 ppm / NOAEL >900ppm

This product contains ISOPARAFFIN C10-C12

Target Organ: 13 week / inhalation / rat / 368, 737, 1474 ppm / NOAEL = 737ppm / LOAEL = 1474ppm (Lethargy, decrease body weight gain, hematological effects)

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY:

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on data for a similar material.

- 48 hour(s) / LL0 / water flea (*Daphnia magna*) / 1000 mg/l
- 96 hour(s) / EL0 / Rainbow trout (*Salmo gairdneri*) / 1000 mg/l

### ENVIRONMENTAL FATE:

Biodegradability: 28 day(s) / 69.8 % volume

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

## SECTION 14 TRANSPORT INFORMATION

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition). Consult the appropriate domestic or international mode- specific and quantity- specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the MSDS and the bill of lading.

**Shipping Descriptions per regulatory authority.**

**US DOT**

UN3295, HYDROCARBONS, LIQUID, N.O.S. , Combustible Liquid, III

**ICAO / IATA**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

**IMO / IMDG**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

**RID / ADR**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

<b>SECTION 15 REGULATORY INFORMATION</b>
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**SARA 311/312 CATEGORIES:**

- |                                       |     |
|---------------------------------------|-----|
| 1. Immediate (Acute) Health Effects:  | YES |
| 2. Delayed (Chronic) Health Effects:  | NO  |
| 3. Fire Hazard:                       | YES |
| 4. Sudden Release of Pressure Hazard: | NO  |
| 5. Reactivity Hazard:                 | NO  |

**REGULATORY LISTS SEARCHED:**

- |                             |                            |                               |
|-----------------------------|----------------------------|-------------------------------|
| 01 = CA Prop 65             | 17 = FDA 178               | 33 = RCRA Waste Appendix VIII |
| 02 = LA RTK                 | 18 = FDA 179               | 34 = RCRA Waste D-List        |
| 03 = MA RTK                 | 19 = FDA 180               | 35 = RCRA Waste P-List        |
| 04 = MN Hazardous Substance | 20 = FDA 181               | 36 = RCRA Waste U-List        |
| 05 = NJ RTK                 | 21 = FDA 182               | 37 = SARA Section 302         |
| 06 = PA RTK                 | 22 = FDA 184               | 38 = SARA Section 313         |
| 07 = CAA Section 112 HAPs   | 23 = FDA 186               | 39 = TSCA 12 (b)              |
| 08 = CWA Section 307        | 24 = FDA 189               | 40 = TSCA Section 4           |
| 09 = CWA Section 311        | 25 = IARC Group 1          | 41 = TSCA Section 5(a)        |
| 10 = DOT Marine Pollutant   | 26 = IARC Group 2A         | 42 = TSCA Section 8(a) CAIR   |
| 11 = FDA 172                | 27 = IARC Group 2B         | 43 = TSCA Section 8(a) PAIR   |
| 12 = FDA 173                | 28 = IARC Group 3          | 44 = TSCA Section 8(d)        |
| 13 = FDA 174                | 29 = IARC Group 4          | 45 = WHIMS - IDL              |
| 14 = FDA 175                | 30 = NTP Carcinogen        | 46 = Germany D TAL            |
| 15 = FDA 176                | 31 = OSHA Carcinogen       | 47 = Germany WKG              |
| 16 = FDA 177                | 32 = OSHA Highly Hazardous | 48 = DEA List 1               |
|                             |                            | 49 = DEA List 2               |

**The following components of this material are found on the regulatory lists indicated.**

C10-C13 Isoalkanes

**WHMIS CLASSIFICATION:**

Class B, Division 3: Combustible Liquids

**CHEMICAL INVENTORY LISTINGS:**

<b>AUSTRALIA</b>	YES (AUS)
<b>CANADA</b>	YES (DSL)
<b>CHINA</b>	YES (IECSC)
<b>EUROPEAN UNION</b>	YES (EINECS)
<b>JAPAN</b>	YES (ENCS)
<b>KOREA</b>	YES (ECL)
<b>PHILIPPINES</b>	YES (PICCS)
<b>UNITED STATES</b>	YES (TSCA)

**EU LABELING:**

Danger

**Symbols:**

Xn - Harmful

**Risk and Safety Phrases:**

R66: Repeated exposure may cause skin dryness or cracking.

R65: Harmful: may cause lung damage if swallowed.

R67: Vapors may cause drowsiness and dizziness.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S2: Keep out of the reach of children.

S62: If swallowed do not induce vomiting: seek medical advice immediately and show this container or label.

S28: After contact with skin, wash immediately with soap and water.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

**SECTION 16 OTHER INFORMATION****NFPA RATINGS:** Health: 1 Flammability: 2 Reactivity: 0 Special: NA

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*-Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA).

**REVISION STATEMENT:** This MSDS was updated to meet a 3-year review.**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV	- Threshold Limit Value	TWA	- Time Weighted Average
STEL	- Short-term Exposure Limit	PEL	- Permissible Exposure Limit
ACGIH	- American Conference of Government Industrial Hygienists	OSHA	- Occupational Safety & Health Administration
NIOSH	- National Institute for Occupational Safety & Health	NFPA	- National Fire Protection Agency
WHMIS	- Workplace Hazardous Materials Information System	IARC	- Intl. Agency for Research on Cancer
EINECS	- European Inventory of existing Commercial Chemical Substances	RCRA	- Resource Conservation Recovery Act
SARA	- Superfund Amendments and Reauthorization Act.	TSCA	- Toxic Substance Control Act
EC50	- Effective Concentration	LC50	- Lethal Concentration

LD50 - Lethal Dose  
NDA - No Data Available  
<= - Less Than or Equal To  
CNS - Central Nervous System

CAS - Chemical Abstract Service  
NA - Not Applicable  
>= - Greater Than or Equal To  
MAK - Germany Maximum Concentration Values

**This data sheet is prepared according to the latest adaptation of the EEC Guideline 67/548.  
This data sheet is prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
This data sheet is prepared according to the ANSI MSDS Standard (Z400.1).  
This data sheet was prepared by EHS Product Stewardship Group, Chevron Phillips Chemical Company LP, 10001 Six Pines Drive, The Woodlands, TX 77380.  
This data sheet is prepared according to the Globally Harmonized System (GHS).**

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**