Safety Data Sheet

Version No.: ACG/2015-II

Date of Issue: Mar. 19,2015

1. Identification

1.1 Product Identifier

Material Name: Propylene Glycol

CAS NO.:57-55-6

EINECS NO.: 200-338-0

1.2 Manufacturer Name

Arrow Chemical Group Corp.

1.3 Manufacturer Address and Contact Details

Address:5F,Inter Royal Mansion, No.15 Donghai West Road, Qingdao China

Telephone:+86 (0) 532 89072278

Fax: +86 (0) 532 89072276

Email contact for : market@arrow-chemical.com

1.4 Emergency Phone Number

Emergency phone number:+86 (0) 532 89072278 EXT 612

1.5 Recommended Use

Generally accepted for use as a component in the manufacture of unsaturated polyester resins,

functional fluids, paints and coatings and plasticizers.

2. Hazards Identification

2.1 Overview

Color: Colorless

Physical State: Liquid.

Odor: mild

2.2 Hazards regarding the chemical

No significant immediate hazards for emergency response are known.

OSHA Hazard Communication Standard: This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

2.3 Required label elements



The product does not require a hazard warning label in accordance with GHS criteria.

3. Composition/Information on Ingredients

Material Formal Name: Propane-1,2-diol

Weight:99.5%

4. First Aid Measures

Inhalation: Remove to fresh air. Not expected to require first aid measures.

Ingestion: Not expected to require first aid measures. Give several glasses of water to drink to dilute.

If large amounts were swallowed, get medical advice.

Skin Contact: Remove any contaminated clothing. Wash skin with soap and water for at least 15

minutes. Get medical attention if irritation develops or persists.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes,

lifting upper and lower eyelids occasionally. Call a physician if irritation persists.

Note to Physician: In case of ingestion, monitor for acidosis and central nervous system changes.

Exposed persons with previous kidney dysfunction may require special treatment.

5. Fire Fighting Measures

Fire: Flash point: 99C (210F) CC

Autoignition temperature: 371C (700F)

Flammable limits in air % by volume:

lel: 2.6; uel: 12.5

Material can support combustion.

Explosion: Containers may explode in heat or fire.

Fire Extinguishing Media:

Dry chemical, foam, water or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing

apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Move exposed containers from fire area, if it can be done without risk. Use water to keep

fire-exposed containers cool.

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6. Accidental Release Measures

6.1 Emergency Procedures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible.

6.2 Protective Equipment

Use non-sparking tools and equipment.

6.3 Proper methods of containment and cleanup

Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust.

Do not flush to sewer!

7. Handling and Storage

Protect container from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture, and incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

8.1 OSHA'S Permissible Exposure Limits(PELs) & Threshold Limit Values(TLVs)

Airborne Exposure Limits: AIHA Workplace Environmental Exposure Level (WEEL): Vapor and Aerosol = 50ppm; Aerosol, only = 10mg/m3.

8.2 Personal Protective equipment

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the



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maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH P100 or R100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Please note that N series filters are not recommended for this material. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear oily liquid.

Odor: Odorless.

Solubility: Miscible in water.

Specific Gravity: 1.0361 @ 20C/4C

pH: No information found.

% Volatiles by volume @ 21C (70F): No information found.

Boiling Point: 188.2C (370F)
Melting Point: -59C (-74F)
Vapor Density (Air=1): 2.6

Vapor Pressure (mm Hg): 0.129 @ 25C (77F)

Evaporation Rate (BuAc=1): 0.01

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition. Aldehydes or lactic, pyruvic or acetic acids may also be formed.

Hazardous Polymerization: Will not occur. Incompatibilities: Strong oxidizing agents.

 $\label{lem:conditions} \textbf{Conditions to Avoid: Heat, flames, ignition sources and incompatibles.}$



11. Toxicological Information

11.1 Routes of Exposure & Numerical Measures of Toxicity

Oral rat LD50: 20g/kg. Skin rabbit LD50: 20.8g/kg. Inhalation LD50: Not listed.

Irritation: Eye rabbit/Draize, 500 mg/24H mild.

11.2 Acute Toxicity

Irritation: Non-irritate to eyes and skin

11.3 Chronic Toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in studies with mammals.

Symptoms of Exposure:No significant symptoms are expected due to the non-classification of the product.

12. Ecological Information

Environmental Fate:

When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into water, this material is expected to readily biodegrade. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.

Environmental Toxicity: No information found.

13. Disposal Considerations

Land transport(USDOT)

Not classified as a dangerous good under transport regulations

Sea transport(IMDG)

Not classified as a dangerous good under transport regulations

Air transport(IATA/ICAO)

Not classified as a dangerous good under transport regulations

14. Transport Information

Not regulated.

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15. Regulatory Information

15.1 The regulatory information is not intended to be comprehensive. Other regulation may apply to this material.

EC Classification: Not classified as dangerous under EC criteria

AICS: Listed

DSL: Listed

INV(CN): Listed

ENCS(JP):Listed (2)-234 ISHL(JP): Listed 2-(8)-321 ISHL(JP): Listed 2-(8)-323

TSCA: Listed

EINECS: Listed 200-338-0 KECI(KR): Listed KE-29267

PICCS(HP):Listed

National Legislation

OE_HPV: Listed

ECMON:81840

Listed

15.2 U.S. Federal Regulations

TSCA 12(b): Not applicable SARA 313: Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard: No Chronic Health Hazard: No

Fire Hazard: No

Sudden Release of Pressure Hazard: No

Reactive Hazard: No

Clean Water Act: Not applicable Clean Air Act: Not applicable

OSHA: Not applicable

CERCLA: Not Applicable

California Proposition 65: This product does not contain any Proposition 65 chemicals



U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security: This product does not contain any DHS chemicals

16. Other Information

Version No.: ACG/2015- II

Date of Revision: Mar.6,2015