

1. identification

A. Product Name : D80

B. Recommended use : Industrial solvents

Restriction on use: Not available

C. Manufacturer / Supplier / Distributor information

1) Supplier/Distributor information

GODO CHEMICAL Corporation			
#1017, 10F Suseo Hyundai Ventureville 10 Bangogae-ro 1-gil			
Gangnam-gu Seoul 06349 Korea			
Telephone	(82)2 417 2555~6	Fax	82(2) 417 2557

2. hazard identification

A. GHS Classification

1) Physical Hazards : Not classified

2) Health Hazards :

- Aspiration hazard : Category1

3) Environmental Hazards : Not classified

B. GHS label elements

1) Hazard symbols :



2) Signal words : Danger

3) Hazard statements :

H304 May be fatal if swallowed and enters airways



4) Precautionary statements :

■ Precaution : Not applicable

■ Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

■ Storage

P405 Store locked up.

■ Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

C. Other hazards which do not result in classification: (NFPA Classification)

– NFPA grade (0 ~ 4 level) : Health : 1, Flammability : 2, Reactivity : 0

3. composition/information on ingredients

Chemical Name	Trade names and Synonyms	CAS No.	Content (%)
Distillates (petroleum), hydrotreated light	Naphtha	64742-47-8	100

4. first aid measures

A. Eye contact

- Do not rub your eyes.
- Immediately flush eyes with plenty of water for at least 15 minutes.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.

C. Inhalation contact

- When exposed to large amounts of steam and mist, move to fresh air.
- Take specific treatment if needed.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.



- If swallowed, large amounts of water to drink and do not induce vomiting.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of the substance and have them take appropriate protective measures.

5. fire fighting measures

A. Suitable (Unsuitable) extinguishing media

- 1) Suitable extinguishing media : foam, carbon dioxide, water spray, dry sand or earth
- 2) Unsuitable extinguishing media : Avoid use of water jet for extinguishing.
- 3) In case of large fire : spraying, watering

B. Specific hazards arising from the chemical

- May form explosive mixtures at temperatures at or above the flashpoint.
- Containers may explode when heated.
- Some can be burn, but not ignite easily.
- May cause irritating, corrosive and toxic gases in case of fire.

C. Special protective actions for firefighters

- Move containers from fire area, if you can do without the risk.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Do not approach the tank surrounded by fire until it is extinguished.
- Use appropriate extinguishing measure suitable for surrounding fire.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.
- Vapor or gas is burned at distant ignition sources can be spread quickly.

6. additional release measures

A. Personal precautions, protective equipment and emergency procedures

- Ventilate closed spaces before entering.
- Must work against the wind, let the upwind people to evacuate.
- Do not touch spilled material. Stop leak if you can do it without risk.
- Remove all sources of ignition.
- Do not direct water at spill or source of leak.

**B. Environmental precautions**

- Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notification to central government, local government. When emissions at least of the standard amount
- Dispose of waste in accordance with local regulation.
- Appropriate container for disposal of spilled material collected.
- Small leak: sand or other non-combustible material, please let use absorption.
- Wipe off the solvent.
- Dike for later disposal

7. handling and storage**A. Precautions for safe handling**

- Comply with all applicable laws and regulations for handling
- Obtain the manual of this product before using it.
- Refer to Engineering controls and personal protective equipment.
- Do not inhale the steam prolonged or repeated.

B. Conditions for safe storage, including any incompatibilities:

- Keep in original containers only.
- Keep in mind the materials and conditions to avoid.
- Avoid direct sunlight.
- Keep the container closed during not using it.
- No open fire.
- Prevent static electricity and keep away from heat sources such as boilers and around flammable materials.
- Collected them in sealed containers.

8. exposure controls/personal protection**A. Exposure limits**

- 1) ACGIH TLV : Not regulated
- 2) OSHA PEL : Not regulated

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.



C. Individual protection measures, such as personal protective equipment

1) Respiratory protection:

- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum.
- Consider warning properties before use
- Any chemical cartridge respirator with organic vapor cartridge(s).
- Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
- Any air-purifying respirator with a full facepiece and an organic vapor canister.
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.

2) Eye protection

- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
- Provide an emergency eye wash station and quick drench shower in the immediate work area.

3) Hand protection

- Wear appropriate chemical resistant glove.

4) Skin protection

- Wear appropriate chemical resistant protective clothing.

5) Others: Not available

9. physical and chemical properties

A. Appearance

- State : Liquid
- Color : Transparent, colorless

B. Odor : Unique hydrocarbon odor

C. Odor threshold : Not available

D. pH : Not available

E. Melting point/Freezing point : Not available

F. Initial Boiling Point/Boiling Ranges : 207°C~235°C

G. Flash point : 74°C~83°C

H. Evaporation rate : <1 (ASTM D3539, n-BuAc=100)

I. Flammability (solid, gas) : Not applicable

J. Lower/Upper Flammability or explosive limits : 0.5 / 5%

K. Vapor pressure : 0.55 mmHg (37.8°C)

L. Solubility : Less than 0.1 wt% based on water

M. Vapor density (Air=1) : >1.0

- N. Specific gravity (Relative density) : 0.790~0.810 (15.56°C)
O. Partition coefficient of n-octanol/water : Not available
P. Auto ignition temperature : About 230°C
Q. Decomposition temperature : Not available
R. Viscosity : 2.31~2.42 cSt (20°C)
S. Molecular weight : Not available

10. stability and reactivity

A. Chemical Stability

- Stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Cylinders exposed to fire may vent and release flammable gas.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.
- Avoid sources of ignition because it is a highly flammable substance.

D. Incompatible materials : Not available

E. Hazardous decomposition products

- May cause irritating, corrosive and toxic gases in case of fire.

11. toxicological information

A. Information on the likely routes of exposure

- Respiratory tracts : May be fatal if swallowed and enters airways.
- Oral : Not available
- Eye·Skin : Not available

B. Delayed and immediate effects and also chronic effects from short and long term exposure

1) Acute toxicity

- Oral : Not classified
 - LD50 > 5000 mg/kg Rat (OECD 401)
- Dermal : Not classified
 - LD50 > 5000 mg/kg Rabbit (OECD 402)
- Inhalation : Not classified
 - Vapour LC50 > 5000 mg/m³ air 4hr Rat (OECD 403)

2) Skin corrosion/irritation : Not classified

- Not irritating(rabbit) (IUCLID)

- 3) Serious eye damage/irritation : Not classified
 - Not irritating(rabbit) (IUCLID)
- 4) Respiratory sensitization : Not available
- 5) Skin sensitization : Not classified
 - Not sensitizing(Guinea Pig) (IUCLID)
- 6) Carcinogenicity : Not available
 - NTP : Not available
 - IARC : Not available
 - ACGIH : Not available
 - OSHA : Not available
 - EU CLP: Not available
- 7) Germ cell mutagenicity : Not classified
 - In vitro, in vivo mutagenicity test result, negative (IUCLID)
- 8) Reproductive toxicity : Not available
- 9) STOT–single exposure : Not classified
 - No adverse effect observed.
- 10) STOT–repeated exposure : Not classified
 - No adverse effect observed
 - Oral 90d: NOAEL \geq 5000 mg/kg bw/day Rats (similar to OECD TG 408)
 - Inhalation 90d: NOAEL \geq 10400 mg/m³ Rats (similar to OECD TG 413)
- 11) Aspiration hazard : Category1
 - If swallowed this liquid, aspirate into the lungs and cause chemical pneumonitis.
 - Viscosity at 40°C 1–2.4 cSt (ICSC, ECHA Registered substances)

12. ecological information

A. Ecotoxicity

- Acute aquatic toxicity : Not classified
 - Chronic aquatic toxicity : Not classified
- 1) Fish
 - LL50(96h) >1000 mg/L, NOELR(28d) 0.101 mg/L *Oncorhynchus mykiss*
 - 2) Crustaceans
 - EL50(48h) >1000 mg/L, NOEL(21d) 0.176 mg/L *Daphnia magna*
 - 3) Algae
 - EL50(72h) >1000 mg/L NOELR(72h) 1000 mg/L *Pseudokirchneriella subcapitata*

B. Persistence and degradability


- 1) Persistence : Not available
- 2) Degradability : Not available

- C. Bioaccumulative potential
- 1) Bioaccumulative potential : Not available
 - 2) Biodegradation
 - 80% 28days, readily-degradable (Read-across)
- D. Mobility in soil : Not available
- E. Other adverse effects : Not available

13. disposal considerations

- A. Disposal methods
- Since more than two kinds of designated waste is mixed, it is difficult to treat separately, then can be reduction or stabilization by incineration or similar process.
 - If water separation is possible, pre-process with Water separation process.
 - Dispose by incineration.
- B. Special precautions for disposal
- The user of this product must dispose by oneself or entrust to waste disposer or person who other's waste recycle and dispose or person who establish and operate waste disposal facilities.
 - Dispose of waste in accordance with all applicable laws and regulations.

14. transport information

- A. UN No. (ADN) : 9003
- B. Proper shipping name : Substances with $60^{\circ}\text{C} < \text{f.p.} \leq 100^{\circ}\text{C}$
- C. Hazard Class (ADN) : 9
- D. Transport Labels
- 
- E. ADN Packing group : III
- F. Marine pollutant : Not applicable



G. Special precautions for user related to transport or transportation measures

- Local transport follows in accordance with Dangerous goods Safety Management Law.
- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.
- EmS FIRE SCHEDULE: F-A (General fire schedule)
- EmS SPILLAGE SCHEDULE: S-F (Water-soluble marine pollutants)
- Emergency Action Code: I3Z
- Hazard No. (ADR): 90
- Tunnel Restriction Code: 3(E)

15. regulatory information

A. National and/or international regulatory information

- 1) POPs Management Law : Not regulated
- 2) Europe regulatory
 - REACH Restricted substance under REACH : Not applicable
 - REACH Substances subject to authorization under REACH : Not applicable
 - REACH SVHC : Not applicable
 - Europe PBT : Not applicable
 - European Union (EU) Transport of Dangerous Goods by Road – Dangerous Goods List
 - Not applicable
- 3) U.S. Federal regulations
 - OSHA PROCESS SAFETY (29CFR1910.119) : Not regulated
 - CERCLA Section 103 (40CFR302.4) : Not regulated
 - EPCRA Section 302 (40CFR355.30) : Not regulated
 - EPCRA Section 304 (40CFR355.40) : Not regulated
 - EPCRA Section 313 (40CFR372.65) : Not regulated
- 4) Rotterdam Convention listed ingredients : Not regulated
- 5) Stockholm Convention listed ingredients : Not regulated
- 6) Montreal Protocol listed ingredients : Not regulated

16. other information

A. Reference

- TSCA; http://iaspub.epa.gov/sor_internet/registry/substreg/searchandretrieve/searchbylis/search.do
- EU Regulation 1272/2008
- TOMES; LOLI ; <http://csi.micromedex.com/fraMain.asp?Mnu=0>
- UN Recommendations on the transport of dangerous goods 17th



- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans;
<http://monographs.iarc.fr>
- ECHA CHEM; <http://echa.europa.eu/web/guest/information-on-chemicals/registeredsubstances>
- OECD SIDS; <http://webnet.oecd.org/Hpv/UI/Search.aspx>
- HSDB; <http://toxnet.nlm.nih.gov/cgi-bin/sis/search2>
- EPA; <http://www.epa.gov/iris>
- InCHEM; <http://www.inchem.org/>
- EPISUITE Program ver.4.1

B. Key acronyms

- ACGIH(American Conference of Governmental Industrial Hygienists)
- ECHA(European Chemicals Agency)
- OECD(Organization for Economic Co-operation and Development)
- CERCLA(Comprehensive Environmental Response, Compensation, and Liability Act)
- IARC(International Agency for Research on Cancer)
- NIOSH(National Institute for Occupational Safety and Health)
- OSHA(Occupational Safety and Health Administration)
- NTP(National Toxicology Program)
- TSCA(Toxic Substances Control Act)
- NFPA(National Fire Protection Association)
- LC50(Lethal Concentration 50% kill)
- LD50(Lethal Dose 50% kill)
- EC50(50% Effect Concentration)
- STEL(Short Term Exposure Limit)
- TWA(Time weight Average)
- TLV(Threshold Limit Value)

C. Issue date: 2018-02-21

D. Revision number and Last date revised : Rev.3, 2020-07-17

E. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).
- This safety data sheet is based on current knowledge and information that we know.
- Please note that this information is not a guarantee of the product itself