

GHS Safety Data Sheet

PANAX ECO YELLOW 1940

| A. Product name | |
|-------------------------|--|
| - PANAX ECO YELLOV | V 1940 |
| B. Recommended use an | d restriction on use |
| - General use | : Not available |
| - Restriction on use | : Not available |
| C. Supplier information | |
| - Company name | : UKSEUNG CHEMICAL CO., LTD. |
| - Address | : 174, Gaejwa-ro, Geumjeong-gu, Busan, Korea |
| - Telephone number | :+82-51-718-5340, 5345 |
| HAZARD IDENTIFICAT | ΠΟΝ |
| HAZARD IDENTIFICAT | ΓΙΟΝ |
| A. GHS Classification | |
| - Not available | |
| B. GHS label elements | |
| • Hazard symbols | |
| - Not available | |
| ○ Signal words | |
| - Not available | |
| • Hazard statements | |
| - Not available | |
| • Precautionary statem | ents |
| 1) Prevention | |
| - Not available | |
| 2) Response | |
| - Not available | |
| 2) 64 | |
| 3) Storage | |
| - Not available | |
| | |

\circ NFPA grade (0 ~ 4 level)

- Health : 1 , Flammability : 1, Reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | Trade names and Synonyms | CAS No. | Content(%) |
|--|---|------------|------------|
| Bismuth vanadium tetraoxide | - | 14059-33-7 | 90 ~ 99 |
| 5,5'-(1H-Isoindole-1,3(2H)-diylidene)dibarbituric acid | 1,3-Bis(2,4,6- trioxoperhydropyrimidin-5- ylidene)isoindoline | 36888-99-0 | 1~10 |

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.

- Immediately flush eyes with plenty of water for at least 15minutes and call a doctor/physician.

B. Skin contact

- Flush skin with plenty of wter for at least 15 minutes while removing contaminated clothing and shoes.
- Laundering enough contaminated clothing before reuse.

C. Inhalation contact

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

D. Ingestion contact

- About whether I should induce vomiting Take the advice of a doctor.
- Rinse your mouth with water immediately.

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 contaminated situations and have them take appropriate protective measures.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray
- Avoid use of water jet for extinguishing

B. Specific hazards arising from the chemical

- Not available

C. Special protective actions for firefighters

- Move containers from fire area, if you can do without the risk.
- Cool containers with water until well after fire is out.
- Keep unauthorized personnel out.
- Notify your local firestation and inform the location of the fire and characteristics hazard.
- Wear appropriate protective equipment.
- Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Wear proper personal protective apparatus as indicated in Section 8 and avoid skin contact and inhalation.
- Do not touch spilled material. Stop leak if you can do it without risk.
- Move container to safe area from the leak area.
- Remove all sources of ignition.

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.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Refer to Engineering controls and personal protective equipment.
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

B. Conditions for safe storage, including any incompatibilities

- Save in cool, dry and well ventilated place.
- Do not use damaged containers.
- Do not apply direct heat.
- No open fire.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

- ACGIH TLV
- Not available
- OSHA PEL
 - Not available

B. Engineering controls

- A system of local and/or general exhaust is recommended to keep employee exposures above the 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. The use of local exhaust ventilation is recommended to control emissions near the source.

C. Individual protection measures, such as personal protective equipment

• 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.
- 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.
- Hand protection
 - Wear appropriate glove.
- Skin protection
 - Wear appropriate clothing.
- Others
 - Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

| A. Appearance | |
|---|---------------|
| - Appearance | Solid |
| - Color | Yellow |
| B. Odor | Not available |
| C. Odor threshold | Not available |
| D. pH | Not available |
| E. Melting point/Freezing point | Not available |
| F. Initial Boiling Point/Boiling Ranges | Not available |
| G. Flash point | Not available |
| H. Evaporation rate | Not available |
| I. Flammability(solid, gas) | Not available |
| J. Upper/Lower Flammability or explosive limits | Not available |
| K. Vapour pressure | Not available |
| L. Solubility | Not available |
| M. Vapour density | Not available |
| N. Specific gravity(Relative density) | Not available |

| O. Partition coefficient of n-octanol/water | Not available |
|---|---------------|
| P. Autoignition temperature | Not available |
| Q. Decomposition temperature | Not available |
| R. Viscosity | Not available |
| S. Molecular weight | Not available |

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid contact with incompatible materials and condition.

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- (Respiratory tracts)
- Not available
- o (Oral)
- Not available
- (Eye∙Skin)
 - Not available

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

• Acute toxicity

* Oral

- [5,5'-(1H-Isoindole-1,3(2H)-divlidene)dibarbituric acid] : LD50 > 10000 mg/kg Rat
- * Dermal
- Not available
- * Inhalation
- Not available
- \circ Skin corrosion/irritation
 - Not available
- Serious eye damage/irritation
 - Not available
- Respiratory sensitization
 - Not available
- Skin sensitization
 - Not available
- Carcinogenicity
 - * IARC
 - Not available
 - * OSHA
 - Not available
 - * ACGIH
 - Not available
 - * NTP

- Not available

- * EU CLP
- Not available
- Germ cell mutagenicity
 - Not available
- \circ Reproductive toxicity
- Not available
- STOT-single exposure
 - Not available
- STOT-repeated exposure - Not available
- Aspiration hazard
 - Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

Fish

- [5,5'-(1H-Isoindole-1,3(2H)-diylidene)dibarbituric acid]: LC50 = 14451.311 mg/ℓ 96 hr (ECOSAR Class: Aliphatic Amines)

• Crustaceans

- [5,5'-(1H-Isoindole-1,3(2H)-diylidene)dibarbituric acid]: LC50 = 650.407 mg/ℓ 48 hr (ECOSAR Class : Aliphatic Amines)

Algae

- [5,5'-(1H-Isoindole-1,3(2H)-diylidene)dibarbituric acid]: EC50 = 78.445 mg/ℓ 96 hr (ECOSAR Class : Aliphatic Amines)

B. Persistence and degradability

 \circ Persistence

- [5,5'-(1H-Isoindole-1,3(2H)-diylidene)dibarbituric acid] : log Kow = -1.91

- $\circ \ {\rm Degradability}$
 - Not available

C. Bioaccumulative potential

• Bioaccumulative potential

- [5,5'-(1H-Isoindole-1,3(2H)-diylidene)dibarbituric acid] : BCF = 3.162

- Biodegration
 - Not available

D. Mobility in soil

- [5,5'-(1H-Isoindole-1,3(2H)-dividene)dibarbituric acid]: Koc = 0.6266 (Low potential for soil adsorption)

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- Since more than two kinds of designaed waste is mixed, it is difficult to treat seperatly, 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 disposal by oneself or entrust to waste disposer or person who other's waste recycle and dispose, 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. (IMDG)

- No classify information as UN recommendations on the transport of dangerous goods

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG Packing group

- Not applicable

E. Marine pollutant

- Not available

F. 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 : Not applicable
- EmS SPILLAGE SCHEDULE : Not applicable

15. REGULATORY INFORMATION

A. National and/or international regulatory information

- POPs Management Law
 - Not applicable
- Information of EU Classification
 - * Classification
 - Not applicable
 - * Risk Phrases
 - Not applicable
 - * Safety Phrase
 - Not applicable

• U.S. Federal regulations

- * OSHA PROCESS SAFETY (29CFR1910.119)
- Not applicable
- * CERCLA Section 103 (40CFR302.4)
 - Not applicable
- * EPCRA Section 302 (40CFR355.30)
 - Not applicable
- * EPCRA Section 304 (40CFR355.40) - Not applicable
- * EPCRA Section 313 (40CFR372.65)

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- Not applicable
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- Rotterdam Convention listed ingredients - Not applicable
- \circ Stockholm Convention listed ingredients
 - Not applicable
- \circ Montreal Protocol listed ingredients
 - Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2015-03-04

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C. Revision number and Last date revised

- Not applicable

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).