Oil red O

SAFETY DATA SHEET

TASS06_Oil red O Kit

Section 1. Identification

GHS product identifier : Oil red O Kit

Product Code: TASS06

Other means of identification: Not available.

Supplier/Manufacturer : BioTnA Inc.
3F-1., Qixian 2nd Rd., Qianjin Dist., Kaohsiung City 801, Taiwan

In case of emergency : +886-7-2612017

Section 2. Hazards identification

1. Oil red O

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard ((EC) No 1272/2008).

Classification of the substance or mixture:
Flammable liquids - Category 2
Serious eye damage/eye irritation - Category 2
Specific target organ toxicity — Single exposure - Category 3

GHS label elements Hazard pictograms:

Signal word : Danger

Hazard statements :
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face

protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical/ ventilating/ lighting equipment.
P242: Use non-sparking tools.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P235: Store in a well-ventilated place. Keep cool.

Storage class: 3 Flammable liquids.

Disposal: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified: EUH066 Repeated exposure may cause skin dryness or cracking.

2. Hematoxylin

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard ((EC) No 1272/2008).

Classification of the substance or mixture: Serious eye damage -Category 1
Specific target organ toxicity - repeated exposure , Oral-Category 2

GHS label elements Hazard pictograms:

Signal word : Danger

Hazard statements : H302 Harmful if swallowed
H318 Causes serious eye damage
H373 May cause damage to organs (kidney) through

	prolonged or repeated exposure (if swallowed)
Precautionary statements Prevention :	Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response:	IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage:	Not applicable..
Disposal:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations..
Hazards not otherwise classified:	Contains Sodium iodate. May produce an allergic reaction.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

1. Oil red O

Ingredient name	Wt%	CAS number
iso-Propyl Alcohol	99.5	67-63-0
Oil red O	0.5	14288-70-1

2. Hematoxylin

Ingredient name	Wt%	CAS number
Water	90	7732-18-5
Hematoxylin	0.1-<0. 5	517-28-2
Aluminium potassium sulfate dodecahydrate	5-<10	7784-24-9
Acetic acid	1-<5	64-19-7
Sodium iodate	0.01-<0.05	7681-55-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, also lifting the upper and lower eyelids. Continue to rinse for at least 10 minutes. Get medical attention immediately.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.

Skin contact: Wash with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing i. Continue to rinse for at least 10 minutes. Get medical attention immediately if symptoms occur.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed Potential acute health effects

None reasonably foreseeable

Section 5. Fire-fighting measures

Extinguishing media

1. Oil red O

Suitable extinguishing media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO_2).

Unsuitable extinguishing media: Do not use a heavy water stream.

Oil red O

Specific hazards arising from the chemical : Fire hazard : Extremely flammable aerosol. Explosion hazard : Heating may cause a fire or explosion.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective : Fire-fighters should wear appropriate protective . equipment and self-contained breathing equipment for fire-fighters apparatus (SCBA) with a full face-piece operated in positive pressure mode.

2. Hematoxylin

Suitable extinguishing media: water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO_2).

Unsuitable extinguishing media: water jet.

Specific hazards arising from the chemical : No specific fire or explosion hazard

Hazardous thermal decomposition products: Carbon monoxide (CO), Carbon dioxide (CO_2)

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective : Fire-fighters should wear appropriate protective equipment and self-contained breathing equipment for fire-fighters apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has

caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment

before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

1. Oil red O

Ingredient name	CAS-No	Control parameters	Basis
iso-Propyl Alcohol	67-63-0	TWA - 200 ppm 8 hours. STEL- 400 ppm 15 minutes.	Standards of Permissible Exposure Limits in Workplace

2. Hematoxylin

Ingredient name	CAS-No	Control parameters	Basis
acetic acid	64-19-7	STEL- 20ppm 15 min. TWA-10ppm 8 hours.	Standards of Permissible Exposure Limits in Workplace

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

1. Oil red O

Physical state:	Liquid.
Color:	Red.
Flash point:	11.7 °C.
Auto-ignition temperature:	Not available.
Flammable limits:	Not available.
Molecular weight:	Not applicable.
Molecular formula:	Not applicable.
pH:	Not applicable.
Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.
Relative density:	0.79.
Vapor pressure:	Not available.
Vapor density:	Not available.
Volatility:	Not available.
Evaporation rate:	Not available.
Viscosity:	Not available.
Solubility:	Not available.

2. Hematoxylin

Physical state:	Liquid.
Color:	red violet.
Flash point:	Not available.
Auto-ignition temperature:	Not available.
Flammable limits:	Not available.
Molecular weight:	Not applicable.
Molecular formula:	Not applicable.
pH:	2 – 3 (25 °C).
Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.
Relative density:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Volatility:	Not available.
Evaporation rate:	Not available.
Viscosity:	Not available.
Solubility:	Water solubility :miscible in any proportion.

Section 10. Stability and reactivity

1. Oil red O

Reactivity: No data available.

Chemical stability: The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: Heat. Overheating. Open flame.

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition: Hazardous combustion products: see section 5.

2.Hematoxylin

Reactivity: This material is not reactive under normal ambient conditions

Chemical stability: The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous: Violent reaction with: Alkali hydroxide (caustic alkali), Aluminium, Chlorates, Permanganates, Peroxides, strong oxidiser

Conditions to avoid: No specific data.

Incompatible materials: There is no additional information.

Hazardous decomposition: Hazardous combustion products: see section 5.

Section 11. Toxicological information

Information on toxicological effects

1. Oil red O

Acute toxicity

Product/ingredient name	Result	Species	Dose
Isopropyl alcohol	LC50 Inhalation Gas. LD50 Dermal LD50 Oral	Rat Rabbit Rat	45248 ppm/1 hours 12800 mg/kg 5000 mg/kg

Irritation/Corrosion: Eyes - Severe irritant.
Skin - Mild irritant.

Sensitization: Not available.

Oil red O

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Isopropyl alcohol	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure) : Not available.

Information on the likely routes of exposure: Not available.

Potential acute health effects: Not available.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:, pain or irritation, watering, redness

Inhalation : Adverse symptoms may include the following:, nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness

Skin contact : No specific data.

Ingestion: No specific data.

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

Short term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Long term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Potential chronic health effects: Not available.

General: Not available.

Carcinogenicity: Not listed

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

2.Hematoxylin

Acute toxicity

Product/ingredient name	Result	Species	Dose

Oil red O

Water	-	-	-
Acetic acid	LD50 Oral	Rat	3.310 mg/kg
Sodium iodate	LD50 Oral	Mouse	505 mg/kg
Potassium aluminum sulfate	LD50 Oral	Mouse	>2 g/kg

Irritation/Corrosion: Eyes - Severe irritant.

Sensitization: Not available.

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated exposure) : kidney.

Aspiration hazard: Shall not be classified as presenting an aspiration hazard.

Information on the likely routes of exposure: Dermal contact. Eye contact. Ingestion..

Potential acute health effects: Not available

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Causes serious eye damage, risk of blindness.

Inhalation : No specific data.

Skin contact : May produce an allergic reaction, pruritis, localised redness

Ingestion: gastrointestinal complaints, nausea, vomiting, renal impairment

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

Short term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Long term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Potential chronic health effects: Not available.

General: Not available.

Carcinogenicity: Not listed

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Oil red O

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity /Acute toxicity estimates

Route	ATE value
Oral	505 mg/kg

Section 12. Ecological information

Toxicity

1. Oil red O

Ingredient name	Resul	Species	Exposure
Isopropyl alcohol	Acute EC50 10100 mg/l Acute LC50 1400000 µg /l Acute LC50 4200 mg/l	Fresh water Daphnia Marine water Crustaceans Fresh water Fish	48 hours 48hours 96 hours

Persistence and degradability: Not available.

Bioaccumulative potential:

Ingredient name	LogPow	BCF	Potential
Isopropyl alcohol	0.05	-	low

Mobility in soil

Soil/water partition coefficient (KOC): Not available.

Other adverse effects: No known significant effects or critical hazards.

2.Hematoxylin

Ingredient name	Resul	Species	Exposure
Acetic acid	Acute EC50 >300,8 mg/l Acute LC50 >300,8 mg/l	Aquatic invertebrates Fish	48 hours 96 hours
Sodium iodate	Acute LC50 350 mg/l	Fish	96 hours
Potassium aluminum sulfate	LC50: < 10000 mg/L	Fish	96 hours

Persistence and degradability: Soluble in water, Persistence is unlikely, based on information available. Not relevant for inorganic substances.

Bioaccumulative potential: Not available.

Mobility in soil

Soil/water partition coefficient (KOC): The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADR/RID Classification	IMDG Classification	IATA Classification
UN number	UN 1219	UN 1219	UN 1219
UN proper shipping name	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)	Isopropanol
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according:

Not available.

Section 15. Regulatory information

Proposition 65

Chemicals known to cause cancer: None of the ingredients is listed.

Chemicals known to cause reproductive toxicity: None of the ingredients is listed.

Hazard symbol: No listed.

Risk phrases: irritating to eyes and skin

Product related hazard information: No listed.

Water hazard class: No listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

Date of issue/Date of revision: 01/13/2025.

Date of previous issue : 05/28/2023.

Version: 2

Key to abbreviations :

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Oil red O

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.