

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **Palette Toner - Blue**

Producer / Distributor :

Jay House Ltd, Unit 6b, Park Lane Ind. Estate,
Corsham, Wiltshire SN13 9LG, UK.
Tel: +44 (0)1249 714555
email: tech@fotospeed.com

*** in the left margin indicates a change from the previous issue

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation . The main ingredients are

Chemical Name and Symbol letter	%w/w	R-Phrase	S-Phrase	EINEC No	CAS No
Oxalic Acid Xn	4 %	R21/22	S2-24/25	205-634-3	144-62-7
Ammonium Iron 111 Sulphate Xi	<10%	R36/38	S26-36		7783-837

3. HAZARD IDENTIFICATION

EC classification : **Preparation Not Classified as Hazardous According the
CHIP Regulations**

See paragraph 15

Most important hazards :

Possible irritant to eyes and skin may be harmful if swallowed.

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In extreme cases seek medical advice.

Skin contact : Flush with plenty of water. Remove contaminated clothing.

Eye contact : Rinse eyes thoroughly with water until irritation stops. In all cases seek medical advice.

Ingestion : Rinse mouth with plenty of water. Give victim considerable amounts of water to drink. Do not induce vomiting. In extreme cases seek medical advice.

Other : No typical symptoms and effects known.

Advice to physician :

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Only use extinguishing media which are compatible with the surrounding materials. Water, water spray, Carbon dioxide, dry powder, foam, sand.

Unsuitable extinguishing media : All extinguishing media are allowed.

Special exposure hazards : When product is involved in a fire, irritating, toxic fumes and smoke may be generated. (ammonia, hydrogen chloride and sulphur oxides may be produced at high temperature) Do not breathe these fumes

Hazardous decomposition/combustion products :-Co Co2 Formic Acid

Protective equipment : Use approved positive pressure self-contained breathing apparatus when product is involved in a fire.

Further instructions : Contaminated extinguishing water should be disposed of in a manner approved by the EEC, national and local regulatory agencies.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :Wear personal protective clothing. (See paragraph 8).
When vapours, aerosols or mists are formed, wear suitable respiratory protection.
Environmental precautions :In case of an accident, avoid release of product into the environment. Prevent product getting into sewerage systems or public waterways. Try to collect as much as possible in an approved container for later disposal
Methods for cleaning up :Action may only be taken when fully protected. Contain the area of spillage. Stop the source of leak. Large amounts should be pumped into a container. Small amounts can be collected with absorbing materials. Small remaining leftovers may be washed away with large amounts of water

7. HANDLING AND STORAGE

Handling :Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Emergency wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke.
Fire and explosion prevention :This preparation contains a lot of water and does not show any flammable or explosive properties. No special fire and explosion prevention procedures are necessary.
Storage requirements :Store in a dry cool, well ventilated place away from all sources of ignition and heating. Keep the package closed if not in use
Other information :Always store in the original container. Do not use the empty contaminated container for any other purposes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls :Ensure good ventilation and exhaustion of working area

Exposure limits :- Oxalic Acid EH40 = 1mg/M3
Ammonium Iron 111 Sulphate
OEL UK: TWA 1mg (FE) / M3
STEL 2 mg (FE) / M3

Personal protection :Wear suitable Protective clothes gloves. eye face protector

Inhalation :Normally a local ventilation is sufficient to keep airborne concentration of chemicals at a low level. No special breathing protection is necessary

Skin contact :Wear impervious rubber gloves.

Eye contact :Wear close fitting safety goggles.

Ingestion :When handling chemicals do not eat, drink or smoke.

Other information :Always follow the mixing instructions strictly when water or other solutions have to be added to the preparation. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Handle with care.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: blue
Odour	: Odourless
Boiling point/range	: Not determined
Melting point/range	: Not relevant
Flash point	: Not relevant
Flammability	: Not relevant
Auto ignition temperature	: Not relevant
Explosive limits lower	: Not relevant
Oxidising properties	: Not determined
Vapour pressure (20deg C)	: Not determined
Density (20deg C)	: 1.01
Solubility in water (25deg C)	: Completely
Solubility in other solvents (25deg C)	: Not determined

pH value (25deg C)	: 1.5
pH solution in water	: Not determined
Partition coefficient n-octanol/water	: Not determined
Viscosity	: As water
Other information	: -

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions

Conditions to avoid : The product is slightly acidic product and contact with alkaline solutions may liberate fumes.

Materials to avoid : Corrosive to various metals

Hazardous decomposition products Only when the product is involved in a fire, or when it is handled incorrectly, is there a possibility that decomposition products will be generated. (See paragraph 5)

11. TOXICOLOGICAL INFORMATION

Acute toxicity : - Oxalic Acid: Oral RAT LD50 : 375 MG/KG

Ammonium Chloride: To the best of our knowledge the best of our knowledge the chemical physical and toxicological properties have not been thoroughly investigated.

Different routes of exposure, health warnings :

Inhalation : Avoid breathing mist, vapour or aerosols. Ventilate as required to keep concentrations low.

Skin contact : Avoid contact with skin.

Eye contact : Can cause irritation.

Ingestion : May be harmful if swallowed.

Other information : -

Experience with humans :

12. ECOLOGICAL INFORMATION

Information about elimination : No data is available yet

Information about environmental compartments :

Ecotoxicity : - High concentrations of Oxalic acid is dangerous to aquatic life

Other information : -

13. DISPOSAL CONSIDERATIONS

Product or contaminated product Dispose of leftovers, waste or contaminated products in accordance with local and national regulations.

Contaminated package : Contaminated package should be disposed of in accordance with local and national regulations.

Other information : We recommend the separation of any waste resulting from this product. It can be dangerous when different photographic products are mixed together

14. TRANSPORT INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
 UN No. :-
 Description : **Palette Toner - Blue**
 Containing :-
 ADR/RID Class :- Item :- TREMCARD: -
 IMDG/ADNR Class :- Page :- EmS :-
 Pack.gr:- MFAG :
 ICAO/IATA Class :- Pass< :- Instr. :-
 Pack.gr:- Cargo<:- Instr. :-

15. REGULATORY INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
 Chemical identity : -
 Warning sign EC : - None required
 Symbol(s) : - N/A
 R(isk) phrase(s) : None
 S(afety) phrase(s) : S2 Keep out of the reach of children
 S24/25 Avoid contact with skin and eyes
 Exposure limits :- See Paragraph 8
 Other information :-

16. OTHER INFORMATION

The above mentioned information corresponds to our present knowledge and therefore does not guarantee certain properties. The safety data sheet serves as a description of the product in regards to necessary safety measures. This product is made for use with Photographic emulsions only and must be used in conjunction with the appropriate instruction sheet. For further technical advice and information contact the manufacturer. Recipients of our product must take responsibility for observing existing laws and regulations.

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **Palette Toner - Red**

Producer / Distributor : Jay House Ltd, Unit 6b, Park Lane Ind. Estate,
Corsham, Wiltshire SN13 9LG, UK.
Tel: +44 (0)1249 714555
email: tech@fotospeed.com

*** in the left margin indicates a change from the previous issue

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation . The main ingredients are

Chemical Name and Symbol letter	%w/w	R-Phrases	S-Phrases	EINEC No	CAS No
Tri Potassium Citrate	24 %			231-905-0	6100-05-6
-	-				
Ammonium Chloride	<10% %			235-186-4	12125-02-9
Xn	R22-36		S26-36		
Copper Sulphate	4%			231-847-6	7758-98-7
Xn	R22-36		S26-36		

3. HAZARD IDENTIFICATION

EC classification : **Preparation Not Classified as Hazardous According the CHIP Regulations**
See paragraph 15

Most important hazards :

Possible irritant to eyes and skin may be harmful if swallowed. Prolonged and consistent exposure to copper sulphate may cause irreversible effects

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In extreme cases seek medical advice.

Skin contact : Flush with plenty of water. Remove contaminated clothing.

Eye contact : Rinse eyes thoroughly with water until irritation stops. In all cases seek medical advice.

Ingestion : Rinse mouth with plenty of water. Give victim considerable amounts of water to drink. Do not induce vomiting. In extreme cases seek medical advice.

Other : No typical symptoms and effects known.

Advice to physician :

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Only use extinguishing media which are compatible with the surrounding materials. Water, water spray, Carbon dioxide, dry powder, foam, sand.

Unsuitable extinguishing media : All extinguishing media are allowed.

Special exposure hazards : When product is involved in a fire, irritating, toxic fumes and smoke may be generated. (ammonia, hydrogen chloride and sulphur oxides may be produced at high temperature) Do not breathe these fumes

Hazardous decomposition/combustion products :-K2O, Br & CN

Protective equipment : Use approved positive pressure self-contained breathing apparatus when product is involved in a fire.

Further instructions :Contaminated extinguishing water should be disposed of in a manner approved by the EEC, national and local regulatory agencies.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :Wear personal protective clothing. (See paragraph 8).

When vapours, aerosols or mists are formed, wear suitable respiratory protection.

Environmental precautions :In case of an accident, avoid release of product into the environment. Prevent product getting into sewerage systems or public waterways. Try to collect as much as possible in an approved container for later disposal

Methods for cleaning up :Action may only be taken when fully protected. Contain the area of spillage. Stop the source of leak. Large amounts should be pumped into a container. Small amounts can be collected with absorbing materials. Small remaining leftovers may be washed away with large amounts of water

7. HANDLING AND STORAGE

Handling :Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Emergency wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke.

Fire and explosion prevention :This preparation contains a lot of water and does not show any flammable or explosive properties. No special fire and explosion prevention procedures are necessary.

Storage requirements :Store in a dry cool, well ventilated place away from all sources of ignition and heating. Keep the package closed if not in use

Other information :Always store in the original container. Do not use the empty contaminated container for any other purposes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls :

Exposure limits :- Ammonium Chloride : OEL UK: TWA 10mg/M3;
STEL 20 MG/M3 (fume) Jan 93
:- Copper Sulphate : OEL UK: TWA 0.2 MG/M3 (fume) Jan 93
OEL UK: TWA 1MG (cu) M3 Jan 93

Personal protection :Wear suitable Protective clothes gloves.eye face protector

Inhalation :Normally a local ventilation is sufficient to keep airborne concentration of chemicals at a low level. No special breathing protection is necessary

Skin contact :Wear impervious Nitrile gloves.

Eye contact :Wear close fitting safety goggles.

Ingestion :When handling chemicals do not eat, drink or smoke.

Other information :Always follow the mixing instructions strictly when water or other solutions have to be added to the preparation. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Handle with care.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: blue
Odour	: Odourless
Boiling point/range	: 100 degrees C
Melting point/range	: Not relevant
Flash point	: Not relevant
Flammability	: Not relevant
Auto ignition temperature	: Not relevant
Explosive limits lower	: Not relevant
Oxidising properties	: Not determined

Vapour pressure (20deg C)	: Not determined
Density (20deg C)	: Not determined
Solubility in water (25deg C)	: Completely
Solubility in other solvents (25deg C)	: Not determined
pH value (25deg C)	: 4.8
pH solution in water	: Not determined
Partition coefficient n-octanol/water	: Not determined
Viscosity	: As water
Other information	: -

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions
Conditions to avoid : The product is slightly alkaline and oxidising. Avoid contact with acids.
Materials to avoid - Alkalis and their carbonates, lead and silver, Ammonium nitrate, potassium chlorate, magnesium, acetylene and sodium
Hazardous decomposition products Only when the product is involved in a fire, or when it is handled incorrectly, is there a possibility that decomposition products will be generated. (See paragraph 5)

11. TOXICOLOGICAL INFORMATION

Acute toxicity :-
 Copper sulphate
 Oral RAT LD50 : 300 MG/KG
 Oral HUM LDLO: 1088 MG/KG
 Ammonium Chloride
 Oral RAT LD50: 1650MG/KG
 Oral MUS LD50: 1350MG/KG

Different routes of exposure, health warnings :Possible risk of cumulative effects.
Inhalation : Avoid breathing mist, vapour or aerosols. Ventilate as required to keep concentrations low.
Skin contact : Avoid contact with skin.
Eye contact : Can cause irritation.
Ingestion : No specific exposure limits determined for this preparation.
Other information :-
Experience with humans :

12. ECOLOGICAL INFORMATION

Information about elimination : No data is available ye
Information about environmental compartments :
Ecotoxicity :-
Other information :-

13. DISPOSAL CONSIDERATIONS

Product or contaminated product Dispose of leftovers, waste or contaminated products in accordance with local and national regulations.
Contaminated package : Contaminated package should be disposed of in accordance with local and national regulations.
Other information : We recommend the separation of any waste resulting from this product. It can be dangerous when different photographic products are mixed together

14. TRANSPORT INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
 UN No. :-
 Description : **Palette Toner - Red**
 Containing :-
 ADR/RID Class :- Item :- TREMCARD: -
 IMDG/ADNR Class :- Page :- EmS :-
 Pack.gr: - MFAG :
 ICAO/IATA Class :- Pass< :- Instr. :-
 Pack.gr: - Cargo<:- Instr. :-

15. REGULATORY INFORMATION

Labelled in Accordance with CHIP 96
 Chemical identity : -
 Warning sign EC : - None required
 Symbol(s) : - N/A
 R(isk) phrase(s) : None
 S(afety) phrase(s) : S2 Keep Out of reach of Children
 S24/25 Avoid Contact with
 Exposure limits :- See Paragraph 8
 Other information :-

16. OTHER INFORMATION

The above mentioned information corresponds to our present knowledge and therefore does not guarantee certain properties. The safety data sheet serves as a description of the product in regards to necessary safety measures. This product is made for use with Photographic emulsions only and must be used in conjunction with the appropriate instruction sheet. For further technical advice and information contact the manufacturer. Recipients of our product must take responsibility for observing existing laws and regulations.

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **Palette Toner - Titanium Yellow**

Producer / Distributor : Jay House Ltd, Unit 6b, Park Lane Ind. Estate, Corsham, Wiltshire SN13 9LG, UK.
 Tel: +44 (0)1249 714555
 email: tech@fotospeed.com

*** in the left margin indicates a change from the previous issue

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation . The main ingredients are

Chemical Name and Symbol letter	%w/w	R-Phrases	S-Phrases	EINEC No	CAS No
Hydrochloric Acid C	<9 %	R34-37	S26-36/37/39-45	231-595-7	7647-01-0
Titanium Chloride T	<3%	R23-34-22-14	S-22-26-36/37/39-45-6(nitrogen)	231-441-9	7803-55-6

3. HAZARD IDENTIFICATION

EC classification : Preparation - Irritant to eyes and respiratory system

Most important hazards : by inhalation and contact

Do not breath fumes vapour or spray and avoid contact with skin and eyes
 See paragraph 15

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In extreme cases seek medical advice.

Skin contact : Flush with plenty of water. Remove contaminated clothing.

Eye contact : Rinse eyes thoroughly with water until irritation stops. In all cases seek medical advice.

Ingestion : Rinse mouth with plenty of water. Give victim considerable amounts of water to drink. Do not induce vomiting. In extreme cases seek medical advice.

Other : Wash contaminated clothing before re-use.

Advice to physician :

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Only use extinguishing media which are compatible with the surrounding materials. Water, water spray, Carbon dioxide, dry powder, foam, sand.

Unsuitable extinguishing media : All extinguishing media are allowed.

Special exposure hazards : When product is involved in a fire, irritating, toxic fumes and smoke may be generated. Do not breathe these fumes

Hazardous decomposition/combustion products :- Hydrogen Chlorine gas, Titanium Oxides

Protective equipment : Use approved positive pressure self-contained breathing apparatus when product is involved in a fire.

Further instructions : Contaminated extinguishing water should be disposed of in a manner approved by the EEC, national and local regulatory agencies.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :Wear personal protective clothing. (See paragraph 8).

When vapours, aerosols or mists are formed, wear suitable respiratory protection.

Environmental precautions :In case of an accident, avoid release of product into the environment. Prevent product getting into sewerage systems or public waterways. Try to collect as much as possible in an approved container for later disposal

Methods for cleaning up :Action may only be taken when fully protected. Contain the area of spillage. Stop the source of leak. Large amounts should be pumped into a container. Small amounts can be collected with absorbing materials. Small remaining leftovers may be washed away with large amounts of water

7. HANDLING AND STORAGE

Handling :Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Emergency wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke.

Fire and explosion prevention :This preparation contains a lot of water and does not show any flammable or explosive properties. No special fire and explosion prevention procedures are necessary.

Storage requirements :Store in a dry cool, well ventilated place away from all sources of ignition and heating. Keep the package closed if not in use

Other information :Always store in the original container. Do not use the empty contaminated container for any other purposes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls :Ensure good ventilation and exhaustion of working area

Exposure limits :- **Titanium Chloride**: OEL Information not available

Hydrochloric Acid : OES Short Term mg/mg3 = 7 Hydrogen chloride

Personal protection :Wear suitable protective clothes gloves eye face protector

Inhalation :Irritating to the respiratory system. Ensure local ventilation is sufficient to keep airborne concentration of chemicals at a low level.

Skin contact :Irritating to skin. Wear suitable protective clothing impervious rubber or nitrile gloves.Wash thoroughly after handling

Eye contact :Irritating to eyes. Wear close fitting safety goggles or face protection.

Ingestion :When handling chemicals do not eat, drink or smoke.

Other information :Always follow the mixing instructions strictly when water or other solutions have to be added to the preparation. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Handle with care.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: yellow
Odour	: Odourless
Boiling point/range	: 136.4
Melting point/range	: Not relevant
Flash point	: Not relevant
Flammability	: Not relevant
Autoignition temperature	: Not relevant
Explosive limits lower	: Not relevant
Oxidising properties	: Not determined
Vapour pressure (20deg C)	: Not determined

Density (20deg C)	: 1.0
Solubility in water (25deg C)	: Completely
Solubility in other solvents (25deg C)	: Not determined
pH value (25deg C)	:
pH solution in water	: Not determined
Partition coefficient n-octanol/water	: Not determined
Viscosity	: As water
Other information	: -

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions

Conditions to avoid : The product is an acidic product and contact with alkaline solutions may liberate fumes.

Materials to avoid : Corrosive to some metals

Hazardous decomposition products When the product is involved in a fire, or when it is handled incorrectly, is there a possibility that decomposition products will be generated. (See paragraph 5)

11. TOXICOLOGICAL INFORMATION

Acute toxicity : -Titanium Chloride

IHL	- Rat	LC50	: 400 M3/KG
IHL	- Mus	LC50	: 100 MG/M3/2H
ORL	- Rat	LD100:	464 Mg/Kg
SKN	- Rab	LD50	: 3160 MG/KG

Different routes of exposure, health warnings : Irritant to eyes skin and respiratory system

Inhalation : Avoid breathing mist, vapour or aerosols. Ventilate as required to keep concentrations low.

Skin contact : Skin Irritant may be harmful if absorbed through the skin. Avoid contact with skin.

Eye contact : Severe Irritant may cause eye burns

Ingestion : May be harmful if swallowed.

Other information : -

Experience with humans :

12. ECOLOGICAL INFORMATION

Information about elimination : No data is available yet

Information about environmental compartments :

Ecotoxicity : -

Other information : -

13. DISPOSAL CONSIDERATIONS

Product or contaminated product Dispose of leftovers, waste or contaminated products in accordance with local and national regulations and in accordance with Special Waste Regulations 1996

Contaminated package : Contaminated package should be disposed of in accordance with local and national regulations.

Other information : We recommend the separation of any waste resulting from this product. It can be dangerous when different photographic products are mixed together

14. TRANSPORT INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
 UN No. :- N/A
 Description : Palette Toner - Titanium Yellow
 Containing :-
 ADR/RID Class :- Item :- TREMCARD: -
 IMDG/ADNR Class :- Page :- EmS :-
 Pack.gr: - MFAG :
 ICAO/IATA Class :- Pass< :- Instr. :-
 Pack.gr: - Cargo<:- Instr. :-

15. REGULATORY INFORMATION

Labelled in Accordance with CHIP 96
 Chemical identity : - Titanium Chloride
 Warning sign EC : - Irritant

 Symbol(s) : - Xi
 R(isk) phrase(s) R436/37/38 Irritating to eyes respiratory system and skin
 S(afety) phrase(s) : 2 Keep out of the reach of Children
 23 Do not breath fumes vapour or spray
 24/25 Avoid contact with skin and eyes
 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice
 Exposure limits :- See section 8
 Other information :-

16. OTHER INFORMATION

The above mentioned information corresponds to our present knowledge and therefore does not guarantee certain properties. The safety data sheet serves as a description of the product in regards to necessary safety measures. This product is made for use with Photographic emulsions only and must be used in conjunction with the appropriate instruction sheet. For further technical advice and information contact the manufacturer. Recipients of our product must take responsibility for observing existing laws and regulations.

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **Palette Toner -
Vanadium Yellow**

Producer / Distributor : Jay House Ltd, Unit 6b, Park Lane Ind. Estate,
Corsham, Wiltshire SN13 9LG, UK.
Tel: +44 (0)1249 714555
email: tech@fotospeed.com

*** in the left margin indicates a change from the previous issue

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation . The main ingredients are

Chemical Name and Symbol letter	%w/w	R-Phrases	S-Phrases	EINEC No	CAS No
Hydrochloric Acid C	<9.0 %	R34-37	S26-36/37/39-45	231-595-7	7647-01-0
Ammonium Metavanadate T	<2.5%	R23/24/25-36/37-40-41	S7-26-28-36/37/39-45		7803-55-6

3. HAZARD IDENTIFICATION

EC classification : **Preparation - Harmful with Possible risk if irreversible effects**

Most important hazards : **by inhalation and skin contact**

Do not breath fumes vapour or spray and avoid contact with skir

See paragraph 15

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In extreme cases seek medical advice.

Skin contact : Flush with plenty of water. Remove contaminated clothing.

Eye contact : Rinse eyes thoroughly with water until irritation stops. In all cases seek medical advice.

Ingestion : Rinse mouth with plenty of water. Give victim considerable amounts of water to drink. Do not induce vomiting. In extreme cases seek medical advice.

Other : Wash contaminated clothing before re-use.

Advice to physician :

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Only use extinguishing media which are compatible with the surrounding materials. Water, water spray, Carbon dioxide, dry powder, foam, sand.

Unsuitable extinguishing media : All extinguishing media are allowed.

Special exposure hazards : When product is involved in a fire, irritating, toxic fumes and smoke may be generated. Do not breathe these fumes

Hazardous decomposition/combustion products :-

Protective equipment : Use approved positive pressure self-contained breathing apparatus when product is involved in a fire.

Further instructions : Contaminated extinguishing water should be disposed of in a manner approved by the EEC, national and local regulatory agencies.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :Wear personal protective clothing. (See paragraph 8).

When vapours, aerosols or mists are formed, wear suitable respiratory protection.

Environmental precautions :In case of an accident, avoid release of product into the environment. Prevent product getting into sewerage systems or public waterways. Try to collect as much as possible in an approved container for later disposal

Methods for cleaning up :Action may only be taken when fully protected. Contain the area of spillage. Stop the source of leak. Large amounts should be pumped into a container. Small amounts can be collected with absorbing materials. Small remaining leftovers may be washed away with large amounts of water

7. HANDLING AND STORAGE

Handling :Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Emergency wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke.

Fire and explosion prevention :This preparation contains a lot of water and does not show any flammable or explosive properties. No special fire and explosion prevention procedures are necessary.

Storage requirements :Store in a dry cool, well ventilated place away from all sources of ignition and heating. Keep the package closed if not in use

Other information :Always store in the original container. Do not use the empty contaminated container for any other purposes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls :Ensure good ventilation and exhaustion of working area

Exposure limits :- **Ammonium Metavanadate**: OEL Information not available

Hydrochloric Acid : OES Short Term mg/mg3 = 7 Hydrogen chloride

Personal protection :Wear suitable Protective clothes gloves. eye face protector

Inhalation :Harmful and Irritating to the respiratory system. Ensure local ventilation is sufficient to keep airborne concentration of chemicals at a low level.

Skin contact :Wear impervious rubber or nitrile gloves.

Eye contact :Risk of sever damage to eyes. Wear close fitting safety goggles or face protection.

Ingestion :When handling chemicals do not eat, drink or smoke.

Other information :Always follow the mixing instructions strictly when water or other solutions have to be added to the preparation. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Ammonium Metavanadate is a possible mutagen with possible risk of irreversible effects.Handle with care.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: yellow
Odour	: Odourless
Boiling point/range	: Not determined
Melting point/range	: Not relevant
Flash point	: Not relevant
Flammability	: Not relevant
Auto ignition temperature	: Not relevant
Explosive limits lower	: Not relevant
Oxidising properties	: Not determined
Vapour pressure (20deg C)	: Not determined
Density (20deg C)	: 1.0
Solubility in water (25deg C)	: Completely

Solubility in other solvents (25deg C) : Not determined
pH value (25deg C) :
pH solution in water : Not determined
Partition coefficient n-octanol/water : Not determined
Viscosity : As water
Other information : -

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions

Conditions to avoid : The product is an acidic product and contact with alkaline solutions may liberate fumes.

Materials to avoid : Corrosive to some metals

Hazardous decomposition products Nitrogen Oxides, Ammonia. When the product is involved in a fire, or when it is handled incorrectly, is there a possibility that decomposition products will be generated. (See paragraph 5)

11. TOXICOLOGICAL INFORMATION

Acute toxicity : - Ammonium Metavanadate

ORL	- Rat	LD50	: 58100 UG/KG
IHL	- Rat	LC50	: 7800 UG/M3/KG
SKN	- Rat	LD50	: 2102 MG/KG
IPR	- Rat	LD50	: 18 MG/KG
SCU	- Rat	LD50	: 23 MG/KG
ORL	- Mus	LD50	: 25 MG/KG
IPR	- Mus	LD50	: 45931 UG/KG
SCU	- Rab	LD50	: 13 MG/KG
IVN	- Mus	LD50	: 27100 UG/KG
SCU	- Rab	LD50	: 13 MG/KG

Different routes of exposure, health warnings : Harmful by inhalation and contact
Possible risk of irreversible effects.

Inhalation : Avoid breathing mist, vapour or aerosols. Ventilate as required to keep concentrations low.

Skin contact : Harmful by contact Avoid contact with skin.

Eye contact : Harmful by contact. Avoid contact with skin.

Ingestion : Harmful if swallowed.

Other information : -

Experience with humans :

12. ECOLOGICAL INFORMATION

Information about elimination : No data is available yet

Information about environmental compartments :

Ecotoxicity : -

Other information : -

13. DISPOSAL CONSIDERATIONS

Product or contaminated product Dispose of leftovers, waste or contaminated products in accordance with local and national regulations and in accordance with Special Waste Regulations 1996
Contaminated package : Contaminated package should be disposed of in accordance with local and national regulations.
Other information : We recommend the separation of any waste resulting from this product. It can be dangerous when different photographic products are mixed together

14. TRANSPORT INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
UN No. :- N/A
Description : Palette Toner - Vanadium Yellow
Containing :-
ADR/RID Class :- **Item** :- **TREMCARD:** -
IMDG/ADNR Class :- **Page** :- **EmS** :-
Pack.gr: - **MFAG** :
ICAO/IATA Class :- **Pass<** :- **Instr.** :-
Pack.gr: - **Cargo<**:- **Instr.** :-

15. REGULATORY INFORMATION

Labelled in Accordance with CHIP 96
Chemical identity : - Ammonium Metavanadate
Warning sign EC : - Harmful

Symbol(s) : - **Xn**
R(isk) phrase(s) **R40 Possible Risk of Irreversible effects**
S(afety) phrase(s) **2 Keep out of the reach of Children**
23 Do not breath fumes vapour or spray
24/25 Avoid contact with skin and eyes
26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice
36/37/39 Wear suitable protective clothing, gloves and eye face protection.
Exposure limits :- **See section 8**
Other information :-

16. OTHER INFORMATION

The above mentioned information corresponds to our present knowledge and therefore does not guarantee certain properties. The safety data sheet serves as a description of the product in regards to necessary safety measures. This product is made for use with Photographic emulsions only and must be used in conjunction with the appropriate instruction sheet. For further technical advice and information contact the manufacturer. Recipients of our product must take responsibility for observing existing laws and regulations.

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **Palette Toner - Activator**

Producer / Distributor : Jay House Ltd, Unit 6b, Park Lane Ind. Estate,
Corsham, Wiltshire SN13 9LG, UK.
Tel: +44 (0)1249 714555
email: tech@fotospeed.com

*** in the left margin indicates a change from the previous issue

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation . The main ingredients are

Chemical Name and Symbol letter	%w/w	R-Phrases	S-Phrases	EINEC No	CAS No
Potassium dichromate O T+	<0.09 %	R8-45-46-34	S17-45-36/37/39	231-906-6	7778-50-9

3. HAZARD IDENTIFICATION

EC classification : **Not Classified as Hazardous According to CHIP Regulations**

See paragraph 15

Most important hazards :

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In extreme cases seek medical advice.

Skin contact : Flush with plenty of water. Remove contaminated clothing.

Eye contact : Rinse eyes thoroughly with water until irritation stops. In all cases seek medical advice.

Ingestion : Rinse mouth with plenty of water. Give victim considerable amounts of water to drink. Do not induce vomiting. In extreme cases seek medical advice.

Other : No typical symptoms and effects known.

Advice to physician :

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Only use extinguishing media which are compatible with the surrounding materials. Water, water spray, Carbon dioxide, dry powder, foam, sand.

Unsuitable extinguishing media : All extinguishing media are allowed.

Special exposure hazards : When product is involved in a fire, toxic fumes and smoke may be generated. Do not breathe these fumes

Hazardous decomposition/combustion products : None are expected

Protective equipment : Use approved positive pressure self-contained breathing apparatus when product is involved in a fire.

Further instructions : Contaminated extinguishing water should be disposed of in a manner approved by the EEC, national and local regulatory agencies.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :Wear personal protective clothing. (See paragraph 8).
When vapours, aerosols or mists are formed, wear suitable respiratory protection.

Environmental precautions :In case of an accident, avoid release of product into the environment. Prevent product getting into sewerage systems or public waterways. Try to collect as much as possible in an approved container for later disposal

Methods for cleaning up :Action may only be taken when fully protected. Contain the area of spillage. Stop the source of leak. Large amounts should be pumped into a container. Small amounts can be collected with absorbing materials. Small remaining leftovers may be washed away with large amounts of water

7. HANDLING AND STORAGE

Handling : Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Emergency wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke.

Fire and explosion prevention :This preparation contains a lot of water and does not show any flammable or explosive properties. No special fire and explosion prevention procedures are necessary.

Storage requirements :Store in a dry cool, well ventilated place away from all sources of ignition and heating. Keep the package closed if not in use

Other information : Always store in the original container. Do not use the empty contaminated container for any other purposes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls : Ensure good ventilation and local exhaustion of the working area.

Exposure limits :- Potassium diChromate
MEL 0.05mg/m³ 15min STEL) (as Cr (v1))

Personal protection :

Inhalation : Normally a local ventilation is sufficient to keep airborne concentration of chemicals at a low level. No special breathing protection is necessary

Skin contact : Wear impervious rubber/nitrile gloves.

Eye contact : Wear close fitting safety goggles.

Ingestion : When handling chemicals do not eat, drink or smoke.

Other information : Always follow the mixing instructions strictly when water or other solutions have to be added to the preparation. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Handle with care.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Orange
Odour	: Odourless
Boiling point/range	: Not determined
Melting point/range	: 398 degrees C
Flash point	: Not relevant
Flammability	: Not relevant
Auto ignition temperature	: Not relevant
Explosive limits lower	: Not relevant
Oxidising properties	: Not determined
Vapour pressure (20deg C)	: Not determined
Density (20deg C)	:
Solubility in water (25deg C)	: Completely
Solubility in other solvents (25deg C)	: Not determined
pH value (25deg C)	:
pH solution in water	: Not determined
Partition coefficient n-octanol/water	: Not determined
Viscosity	: As water
Other information	: -

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions
Conditions to avoid :None known
Materials to avoid - Strong Acids, reducing agents, organic materials
Hazardous decomposition products :Not Known
When the product is involved in a fire, or when it is handled incorrectly, is there a possibility that decomposition products will be generated. (See paragraph 5)

11. TOXICOLOGICAL INFORMATION

Acute toxicity :- Potassium dichromate
Oral HUM LD50 5-50mg/Kg
Different routes of exposure, health warnings
Inhalation : Avoid breathing dust mist, vapour or aerosols. Ventilate as required to keep concentrations low.
Skin contact : Prolonged use may cause irritation Avoid contact with skin.
Eye contact : Can cause irritation.
Ingestion : May be harmful if swallowec
Other information :-
Experience with humans :

12. ECOLOGICAL INFORMATION

Information about elimination : Data not yet available

Octanol/Water Partition Coefficient -
Aquatic Toxicity -
Ecotoxicity :-
Other information :-

13. DISPOSAL CONSIDERATIONS

Product or contaminated product Dispose of leftovers, waste or contaminated products in accordance with local and national regulations.
Contaminated package : Contaminated package should be disposed of in accordance with local and national regulations.
Other information : We recommend the separation of any waste resulting from this product. It can be dangerous when different photographic products are mixed together

14. TRANSPORT INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
 UN No. :-
 Description : Palette Toner - Activator
 Containing :
 ADR/RID Class :- Item :- TREMCARD: -
 IMDG/ADNR Class :- Page :- EmS :-
 Pack.gr: - MFAG :
 ICAO/IATA Class :- Pass< :- Instr. :-
 Pack.gr: - Cargo<:- Instr. :-

15. REGULATORY INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
 Chemical identity : -
 Warning sign EC : - None
 Symbol(s) : - None
 R(isk) phrase(s) : None
 S(afety) phrase(s) : 2 Keep out of the reach of children
 - 24/25 Avoid contact with skin and eyes
 Exposure limits :- See Paragraph 8
 Other information :-

16. OTHER INFORMATION

The above mentioned information corresponds to our present knowledge and therefore does not guarantee certain properties. The safety data sheet serves as a description of the product in regards to necessary safety measures. This product is made for use with Photographic emulsions only and must be used in conjunction with the appropriate instruction sheet. For further technical advice and information contact the manufacturer. Recipients of our product must take responsibility for observing existing laws and regulations.

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **Palette Toner - Intensifier**

Producer / Distributor :

Jay House Ltd, Unit 6b, Park Lane Ind. Estate, Corsham, Wiltshire SN13 9LG, UK. Tel: +44 (0)1249 714555 email: tech@fotospeed.com
--

*** in the left margin indicates a change from the previous issue

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation . The main ingredients are

Chemical Name and Symbol letter	%w/w R-Phrases	EINEC No	CAS No
Potassium Bromide -	<0.1 % -	231-830-3	7758-02-3

3. HAZARD IDENTIFICATION

EC classification : **Not Classified as Hazardous According to CHIP Regulations**

See paragraph 15

Most important hazards :

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In extreme cases seek medical advice.

Skin contact : Flush with plenty of water. Remove contaminated clothing.

Eye contact : Rinse eyes thoroughly with water until irritation stops. In all cases seek medical advice.

Ingestion : Rinse mouth with plenty of water. Give victim considerable amounts of water to drink. Do not induce vomiting. In extreme cases seek medical advice.

Other : No typical symptoms and effects known.

Advice to physician :

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Only use extinguishing media which are compatible with the surrounding materials. Water, water spray, Carbon dioxide, dry powder, foam, sand.

Unsuitable extinguishing media : All extinguishing media are allowed.

Special exposure hazards : When product is involved in a fire, toxic fumes and smoke may be generated. Do not breathe these fumes

Hazardous decomposition/combustion products :-None are expected

Protective equipment : Use approved positive pressure self-contained breathing apparatus when product is involved in a fire.

Further instructions : Contaminated extinguishing water should be disposed of in a manner approved by the EEC, national and local regulatory agencies.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :Wear personal protective clothing. (See paragraph 8).

When vapours, aerosols or mists are formed, wear suitable respiratory protection.

Environmental precautions :In case of an accident, avoid release of product into the environment. Prevent product getting into sewerage systems or public waterways. Try to collect as much as possible in an approved container for later disposal

Methods for cleaning up :Action may only be taken when fully protected. Contain the area of spillage. Stop the source of leak. Large amounts should be pumped into a container. Small amounts can be collected with absorbing materials. Small remaining leftovers may be washed away with large amounts of water

7. HANDLING AND STORAGE

Handling :Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Emergency wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke.

Fire and explosion prevention :This preparation contains a lot of water and does not show any flammable or explosive properties. No special fire and explosion prevention procedures are necessary.

Storage requirements :Store in a dry cool, well ventilated place away from all sources of ignition and heating. Keep the package closed if not in use

Other information :Always store in the original container. Do not use the empty contaminated container for any other purposes

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls :Ensure good ventilation and local exhaustion of the working area.

Exposure limits :- Potassium Bromide
ACGIH recommended Threshold Limit Value for total dust:
10mg/m³ 8Hours TWA

Personal protection :

Inhalation :Normally a local ventilation is sufficient to keep airborne concentration of chemicals at a low level. No special breathing protection is necessary

Skin contact :Wear impervious gloves.

Eye contact :Wear close fitting safety goggles.

Ingestion :When handling chemicals do not eat, drink or smoke.

Other information :Always follow the mixing instructions strictly when water or other solutions have to be added to the preparation. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Handle with care.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Orange
Odour	: Odourless
Boiling point/range	: Not determined
Melting point/range	: Not relevant
Flash point	: Not relevant
Flammability	: Not relevant
Auto ignition temperature	: Not relevant

Explosive limits lower	: Not relevant
Oxidising properties	: Not determined
Vapour pressure (20deg C)	: Not determined
Density (20deg C)	: 1.09
Solubility in water (25deg C)	: Completely
Solubility in other solvents (25deg C)	: Not determined
pH value (25deg C)	: 9.7
pH solution in water	: Not determined
Partition coefficient n-octanol/water	: Not determined
Viscosity	: As water
Other information	: -

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions

Conditions to avoid : Heating above 800degrees C

Materials to avoid - Strong Acids oxidising agents heavy metal salts and bromine triflouride

Hazardous decomposition products :Bromine.

When the product is involved in a fire, or when it is handled incorrectly, is there a possibility that decomposition products will be generated. (See paragraph 5)

11. TOXICOLOGICAL INFORMATION

Acute toxicity :- Potassium Bromide
Oral HUM LDLO : 500mg/KG

Different routes of exposure, health warnings

Inhalation : Avoid breathing dust mist, vapour or aerosols. Ventilate as required to keep concentrations low. Prolonged exposure to dust and vapours causes sore throat coughing, shortness of breath

Skin contact : Avoid contact with skin. Prolonged use can cause irritation

Eye contact : Can cause irritation.

Ingestion : if ingested pain in swallowing abdominal pain & nausea

Other information :-

Experience with humans :

12. ECOLOGICAL INFORMATION

Information about elimination : **Potassium Bromide**

KBr is an organic salt which fully dissociates in aquatic environment to bromide and potassium ions. It also undergoes degradation in soil to bromide ions (no further degradation or biodegradation will occur

Octanol/Water Partition

Coefficient - Not applicable since this materials is almost completely soluble in water

Aquatic Toxicity - LC50, Fish 3200mg/l 5 days (rainbow trout)

48 Hour EC50

Daphnia

>100mg/l

Avian Toxicity

Bobwhite quail

Acute Oral LD50 >2500 mg/kg

Bobwhite quail

Dietary LC50 6000ppm

Bioaccumulative

Potential

Unlikely to occur since KBr is highly soluble in water

Ecotoxicity :-

Other information :-

13. DISPOSAL CONSIDERATIONS

Product or contaminated product Dispose of leftovers, waste or contaminated products in accordance with local and national regulations.
Contaminated package : Contaminated package should be disposed of in accordance with local and national regulations.
Other information : We recommend the separation of any waste resulting from this product. It can be dangerous when different photographic products are mixed together

14. TRANSPORT INFORMATION

Labelled in accordance with CHIP 96 NON HAZARDOUS
 UN No. :- N/A
Description : **Palette Toner Intensifier**
Containing :
ADR/RID Class :- **Item** :- **TREMCARD** :-
IMDG/ADNR Class :- **Page** :- **EmS** :-
Pack.gr :- **MFAG** :-
ICAO/IATA Class :- **Pass<** :- **Instr.** :-
Pack.gr :- **Cargo<** :- **Instr.** :-

15. REGULATORY INFORMATION

Labelled in Accordance with CHIP 96 NON HAZARDOUS
Chemical identity : - Palette Toner - Intensifier
Warning sign EC : - **None**
Symbol(s) : - **None**
R(isk) phrase(s) : **None**
S(afety) phrase(s) : **2 Keep out of the reach of Children**
24/25 Avoid Contact with skin and eyes
Exposure limits :- See Paragraph 8
Other information :-

16. OTHER INFORMATION

The above mentioned information corresponds to our present knowledge and therefore does not guarantee certain properties. The safety data sheet serves as a description of the product in regards to necessary safety measures. This product is made for use with Photographic emulsions only and must be used in conjunction with the appropriate instruction sheet. For further technical advice and information contact the manufacturer. Recipients of our product must take responsibility for observing existing laws and regulations.