

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Identity : **MKS50 Fotomask Cleaner**
Producer / Distributor : Jay House Ltd., Fiveways House, Westwells Road,
 Rudloe, Corsham, Wiltshire SN13 9RG, England
 Tel: 01225 810596 Fax: 01225 811801

2. COMPOSITION / INGREDIENT INFORMATION

This is a liquid preparation of hydrocarbon solvents, inert resins, pigments and an oil plasticiser. The significant components are :

Chemical Name	Symbol letter	R-Phrases	S-Phrases	EINEC No	CAS No
TOLUENE	65% F, Xn	11-20	16-25-29-33	203-625-9	108-88-3
BUTANONE	35% F, Xi	11-36/37	9-16-25-33	201-159-0	78-93-3

3. HAZARD IDENTIFICATION

EC classification :
 See paragraph 15
Most important hazards : **Highly flammable Harmful by inhalation**

4. FIRST AID MEASURES

Inhalation : Move the victim to fresh air. Put person in half sitting position and let rest. In all cases seek medical advice
Skin contact : Flush with plenty of water. Remove contaminated clothing. Wash afterwards with soap and water.
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 all cases seek medical advice
Other :
Advice to physician :

5. FIRE-FIGHTING MEASURES

Special Risks : Vapour air mixture explosive.
Suitable extinguishing media Use foam, dry powder or carbon dioxide.
Unsuitable extinguishing media :-
Special exposure hazards : When product is involved in a fire, toxic fumes and smoke will be generated. Do not breathe these fumes
Hazardous decomposition/combustion products :- Peroxides
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

Shut off all sources of ignition warn others to keep a safe distance
MKS50 Fotomask cleaner

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

Take precautions against static discharge

Handling :Working areas and methods should be organised in such a way that direct contact is avoided.Wear protective clothing. Wash and eye rinse facilities must be accessible. When handling chemicals, do not eat, drink or smoke. Work directly from can do not pour into open vessels. Do not use near naked flame or sources of heat.

Fire and explosion prevention :Store in a secure area, preferably in a metal cabinet

Storage requirements :Store in a dry cool, well ventilated suitable flammable liquids store, away from all sources of ignition and heating. Keep the package closed if not in use.
Larger quantities (200Litres) should be kept in purpose built stores

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

As appropriate to quantity handled

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

Exposure limits : Toluene: LD50 5000 mg/kg oral, rat
Butonone: LD50 2737 mg/kg oral, rat.

Personal protection :

Inhalation : An extraction hood is recommended when working for extended periods.
Harmful by inhalation.

Skin contact :Wear nitrile gloves.

Eye contact :Wear close fitting safety goggles or face shield.

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

Other information : Always follow the instructions. Avoid breathing mist or vapour. Avoid contact with eyes and skin. Handle with care. Plastic aprons & gloves should be used if handling larger quantities

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid, viscous
Colour	: Colourless
Odour	: Strong spirit
Boiling point/range	: 80 - 111°C
Melting point/range	: minus95 - 86°C
Flash point	: minus1°C
Flammability	: Highly flammable
Autoignition temperature	: 515-535°C
Explosive limits	: 1.4%
Upper	: 12%
Oxidising properties	: Not determined

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

10. STABILITY AND REACTIVITY

Stability : The product is stable under normal storage conditions

Conditions to avoid :-

Materials to avoid - Rubber, various plastics, chloroform/ alkali hydroxides, oxidising agents

Hazardous decomposition products :Peroxides. 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 :-

Different routes of exposure, health warnings

Inhalation : Irritation in the respiratory tract. Avoid breathing mist, vapour or aerosols. Ventilate as required to keep concentrations low

Skin contact : After skin contact, Irritation degreasing effect on the skin possibly followed by secondary inflammation. Danger of skin absorption after long term exposure. Dermatitis.

Eye contact : Irritation.

Ingestion : Vomiting, absorption, risk of aspiration upon vomiting. Systemic effect. After absorption of large quantities CNS disorders, inebriation, spasms, narcosis unconsciousness, respiratory arrest, cardiovascular failure.

Further information:- Good warning effect due to low odour threshold

Toluene: The information suggests a risk of embryotoxic effect must be considered probable. Pregnant women should not be exposed to this product
Evidence of mutagenic or teratogenic effects.

No evidence of carcinogenic effects

12. ECOLOGICAL INFORMATION

Information about elimination

Information about environmental compartments :

Ecotoxicity : LC50 23.5 mg/l inhalation, rat.

Other information : No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention. When dry it forms a "plastic" skin and can be disposed of.

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

UN No.	: -1294 Toluene	1193 Butonone Methyl-Ethyl Ketone	
Description	:-		
Containing	: - Toluene	Butonone	
ADR/RID Class	: - 3,3'(b)	Item	: -
IMDG/ADNR Class	: - 3.2	Page	: -
	Pack.gr : - II		TREMCARD : -
			EmS : -
			MFAG :
ICAO/IATA Class	: - 3.2	Pass<	: -
	Pack.gr : - II	Cargo< : -	Instr. : -

15. REGULATORY INFORMATION**Chemical identity** : TOLUENE, BUTANONE**Warning signs EC** : -

Symbol(s) : F Highly flammable
 Xn Harmful
 Xi Irritant

R(isk) phrase(s) :

R11 Highly flammable
 R20 Harmful by inhalation
 R36/37 Irritating to eyes and respiratory system.

S(afety) phrase(s) :

S9 Keep container in a well ventilated place
 S16 Keep away from sources of ignition - No Smoking
 S23 Do not breathe vapour
 S25 Avoid contact with eyes
 S29 Do not empty into drains
 S33 Take precautionary measures against static discharges

Exposure limits :- UK exposure limits OES Long term mg/m³ 188 (SK) Toluene
 OES Long term mg/m³ 590 Butan-2-one

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. Recipients of our product must take responsibility for observing existing laws and regulations.