

MATERIAL SAFETY DATA SHEET

[1.PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : IROTYL
SUPPLIER : Kao Corporation
ADDRESS : 1-3,Bunka 2-chome,Sumida-ku,Tokyo 131-8501 Japan
DIVISION : Global Chemical Business
TELEPHONE NUMBER : 81-3-5630-7700
FAX NUMBER : 81-3-5630-7889
E-MAIL ADDRESS : chemical@kao.co.jp
EMERGENCY TELEPHONE NUMBER : 81-3-5630-7700
RECOMMENDED USE :
AND RESTRICTIONS ON USE :

[2.HAZARDS IDENTIFICATION]

MOST IMPORTANT HAZARDS AND EFFECTS :

GHS CLASSIFICATION

PHYSICAL AND CHEMICAL HAZARDS

FLAMMABLE LIQUIDS : Category 4

HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified
ACUTE TOXICITY (Dermal) : Not classified
ACUTE TOXICITY (Inhalation) : Classification not possible(Vapours)
SKIN CORROSION / IRRITATION : Not classified
SERIOUS EYE DAMAGE / EYE IRRITATION : Not classified
RESPIRATORY SENSITIZATION : Classification not possible
SKIN SENSITIZATION : Classification not possible
GERM CELL MUTAGENICITY : Classification not possible
CARCINOGENICITY : Classification not possible
REPRODUCTIVE TOXICITY : Classification not possible
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY
- SINGLE EXPOSURE : Classification not possible
- REPEATED EXPOSURE : Classification not possible
ASPIRATION HAZARD : Classification not possible

ENVIRONMENTAL HAZARDS

HAZARDOUS TO THE AQUATIC ENVIRONMENT

- ACUTE TOXICITY : Not classified
- CHRONIC TOXICITY : Not classified

GHS LABEL ELEMENTS

PICTOGRAMS OR SYMBOLS : Not applicable
SIGNAL WORD : Warning
HAZARD STATEMENTS : Combustible liquid

PRECAUTIONARY STATEMENTS

PREVENTION : Keep away from flames and hot surfaces.
Wear protective gloves and eye/face protection as specified by the manufacturer/supplier or the competent authority.

RESPONSE : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Gently wash with plenty of soap and water.
Call a POISON CENTER/doctor/physician if you feel unwell.

In case of fire, keep away from sources of ignition and use appropriate extinguishing media.

- STORAGE : Store container tightly closed in well-ventilated place.
DISPOSAL : Passed to a licensed waste contractor.
SAFE HANDLING ADVICE : Refer to MSDS.

[3.COMPOSITION / INFORMATION ON INGREDIENTS]

- SUBSTANCE OR MIXTURE : Substance
INGREDIENTS AND CONCENTRATION RANGE : Ethyl 2-ethylhexanoate
CAS RN : 2983-37-1

[4.FIRST-AID MEASURES]

- IN CASE OF INHALATION : Remove to fresh air and keep at rest in a position comfortable for breathing.
IN CASE OF SKIN CONTACT : Gently wash with plenty of soap and water.
IN CASE OF EYE CONTACT : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IN CASE OF INGESTION : Call a POISON CENTER or doctor/physician if you feel unwell.

[5.FIRE-FIGHTING MEASURES]

- EXTINGUISHING MEDIA : Powder, alcohol-resistant foam, carbon dioxide, sand
NOT SUITABLE EXTINGUISHING MEDIA : No information available
SPECIFIC HAZARDS : No information available
SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing media.Fight fire from upwind position if possible.
PROTECTION OF FIRE FIGHTERS : Use goggles in combination with dust mask, and another protections as appropriate to situation.

[6.ACCIDENTAL RELEASE MEASURES]

- PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE : Use goggles and protective gloves.
Large spills : Remove person to safety.
Ensure adequate ventilation.
ENVIRONMENTAL PRECAUTIONS : Do not discharge into the drains, surface waters or ground water directly.
METHODS FOR CLEANING UP : Small spills: Absorb spills with sand, inert absorbent, waste cloth or sawdust. Then wipe up remainder in waste cloth.
Large spills: Dike spills and dispose of in safe area.
PREVENTION OF SECONDARY HAZARDS : Keep away from sources of ignition and prepare extinguishing media.

[7.HANDLING AND STORAGE]

- HANDLING
TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PRECAUTIONS : Keep away from source of ignition.
SAFE HANDLING ADVICE : Use an adequate ventilation.
Wash thoroughly after handling.
Use personal protective equipment as required.
STORAGE
SUITABLE STORAGE CONDITIONS : Store container tightly closed in well-ventilated place.
Keep away from source of ignition.
SAFE PACKAGING MATERIALS : No information available

[8.EXPOSURE CONTROLS / PERSONAL PROTECTION]

ENGINEERING MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Use an adequate ventilation.

LIMIT VALUES

ACGIH (TLV) : Not established
OSHA (PEL) : Not established

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : Use as appropriate to situation.
HAND PROTECTION : Rubber gloves
EYE PROTECTION : Safety glasses
SKIN AND BODY PROTECTION : Full-body suit
HYGIENE MEASURES : No information available

[9.PHYSICAL AND CHEMICAL PROPERTIES]**PHYSICAL STATES**

FORM : Liquid
COLOUR : Colorless clear
ODOUR : Characteristic odour
pH : Not applicable

**SPECIFIC TEMPERATURES / TEMPERATURE RANGES
AT WHICH CHANGES IN PHYSICAL STATE OCCUR**

BOILING POINT : No information available
MELTING POINT : No information available
FLASH POINT : 66 °C (150.8 °F) (TAG closed cup method)

FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS : UPPER LIMIT : No information available LOWER LIMIT : No information available

VAPOUR PRESSURE : No information available

VAPOUR DENSITY : No information available

SPECIFIC GRAVITY (DENSITY) : 0.86 g/mL (25.0 °C) (77 °F)

SOLUBILITY

WATER SOLUBILITY : Poor

SOLVENT SOLUBILITY : Soluble in ethyl alcohol

PARTITION COEFFICIENT: n-OCTANOL / WATER (log Pow) : No information available

AUTO-IGNITION TEMPERATURE : No information available

DECOMPOSITION TEMPERATURE : No information available

ODOUR THRESHOLD : No information available

EVAPORATION RATE : No information available

FLAMMABILITY (SOLID,GAS) : No information available

VISCOSITY : No information available

OTHER DATA : No information available

[10.STABILITY AND REACTIVITY]

CHEMICAL STABILITY : Stable in general.

POSSIBILITY OF HAZARDOUS REACTIONS : Stable in general.

CONDITIONS TO AVOID : No information available

INCOMPATIBLE MATERIALS : No information available

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon dioxide
OTHERS : No information available

[11.TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY

Oral

INFORMATION ON PRODUCT : Rat, LD50 : > 2000 mg/kg

Dermal

INFORMATION ON PRODUCT : No information available

Inhalation

INFORMATION ON PRODUCT : No information available

SKIN CORROSION / IRRITATION

INFORMATION ON PRODUCT : Slightly hazardous in case of skin contact (irritant).

SERIOUS EYE DAMAGE / IRRITATION

INFORMATION ON PRODUCT : Slightly hazardous in case of eye contact (irritant).

RESPIRATORY OR SKIN SENSITIZATION

RESPIRATORY

INFORMATION ON PRODUCT : No information available

SKIN

INFORMATION ON PRODUCT : No information available

MUTAGENICITY (GERM CELL MUTAGENICITY)

INFORMATION ON PRODUCT : Non-mutagenic (OECD471)

CARCINOGENICITY

INFORMATION ON PRODUCT : No information available

IARC : Not listed

NTP : Not listed

EU : Not listed

OSHA : Not listed

REPRODUCTIVE TOXICITY

INFORMATION ON PRODUCT : No information available

SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY

- SINGLE EXPOSURE

INFORMATION ON PRODUCT : No information available

- REPEATED EXPOSURE

INFORMATION ON PRODUCT : No information available

ASPIRATION HAZARD

INFORMATION ON PRODUCT : No information available

OTHER INFORMATION

: No information available

[12.ECOLOGICAL INFORMATION]

ECOTOXICITY : Fish, 96h, LC50 : > 100 mg/L

PERSISTENCE / DEGRADABILITY : Readily biodegradable

MOBILITY IN SOIL : No information available

BIOACCUMULATIVE POTENTIAL : No information available

OTHER ADVERSE EFFECTS : No information available

[13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)".
Passed to a licensed waste contractor.

Dispose of waste in accordance with local, state and federal regulations.

[14. TRANSPORT INFORMATION]

Follow all regulations in your country or region

INTERNATIONAL REGULATIONS

UN CLASS / UN NUMBER : Not applicable

SPECIAL PRECAUTIONS FOR USER : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".
Review "HANDLING AND STORAGE (Section 7)".
Ensure containers without breakage or leakage.
Ensure containers tightly fixed.
Follow all regulations in your country or region.
Keep away from source of ignition.

[15. REGULATORY INFORMATION]

Follow all regulations in your country or region.

INVENTORIES	:	ENCS(Japan)	2-782
		TSCA(USA)	Yes
		EINECS(EU)	221-043-3
		AICS(Australia)	Yes
		DSL(Canada)	Yes
		ECL(Korea)	KE-13696
		PICCS(Philippines)	Yes
		IECSC(China)	Yes

KAO Corporation is not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

[16. OTHER INFORMATION]

REFERENCE : -Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1)
-International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)

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